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Somogye et al.

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(54) **ENHANCERS FOR USE WITH GARMENTS**

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(51) **Int. Cl.**
A41C 3/14 (2006.01)

(52) **U.S. Cl.**
CPC ***A41C 3/144*** (2013.01)

(58) **Field of Classification Search**
CPC ... A61F 2/42; A61F 2002/523; A41B 2400/62
USPC 623/7
See application file for complete search history.

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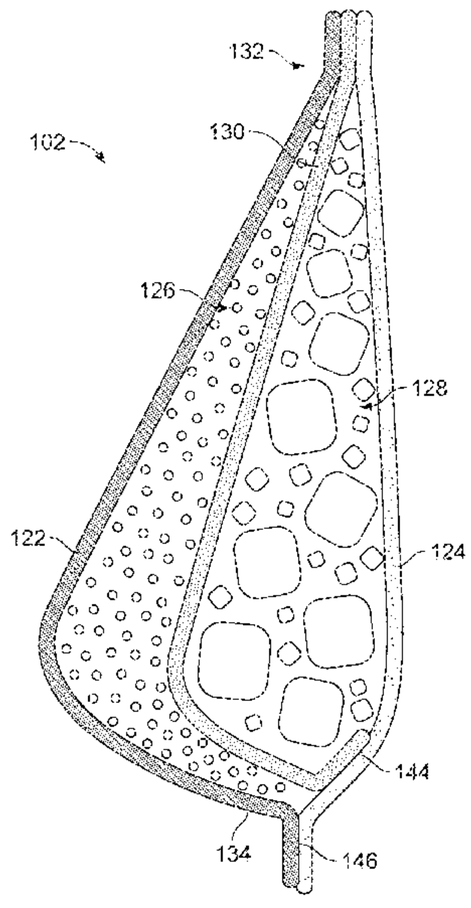
(57) **ABSTRACT**

An enhancer for simulating breast tissue includes a first layer of material and a second layer of material coupled to the first layer of material, where the second layer of material includes a wicking material. The enhancer also includes an third layer of material and a fourth layer of material both disposed generally between the first layer of material and the second layer of material. The third layer of material includes a plurality of monprene beads, and the fourth layer of material includes a plurality of open cell poly foam pieces. The enhancer further includes a fifth layer of material disposed at least partly between the third layer of material and the fourth layer of material, where the fifth layer of material is configured to inhibit mixing of the monprene beads of the third layer and the open cell poly foam pieces of the fourth layer.

19 Claims, 14 Drawing Sheets



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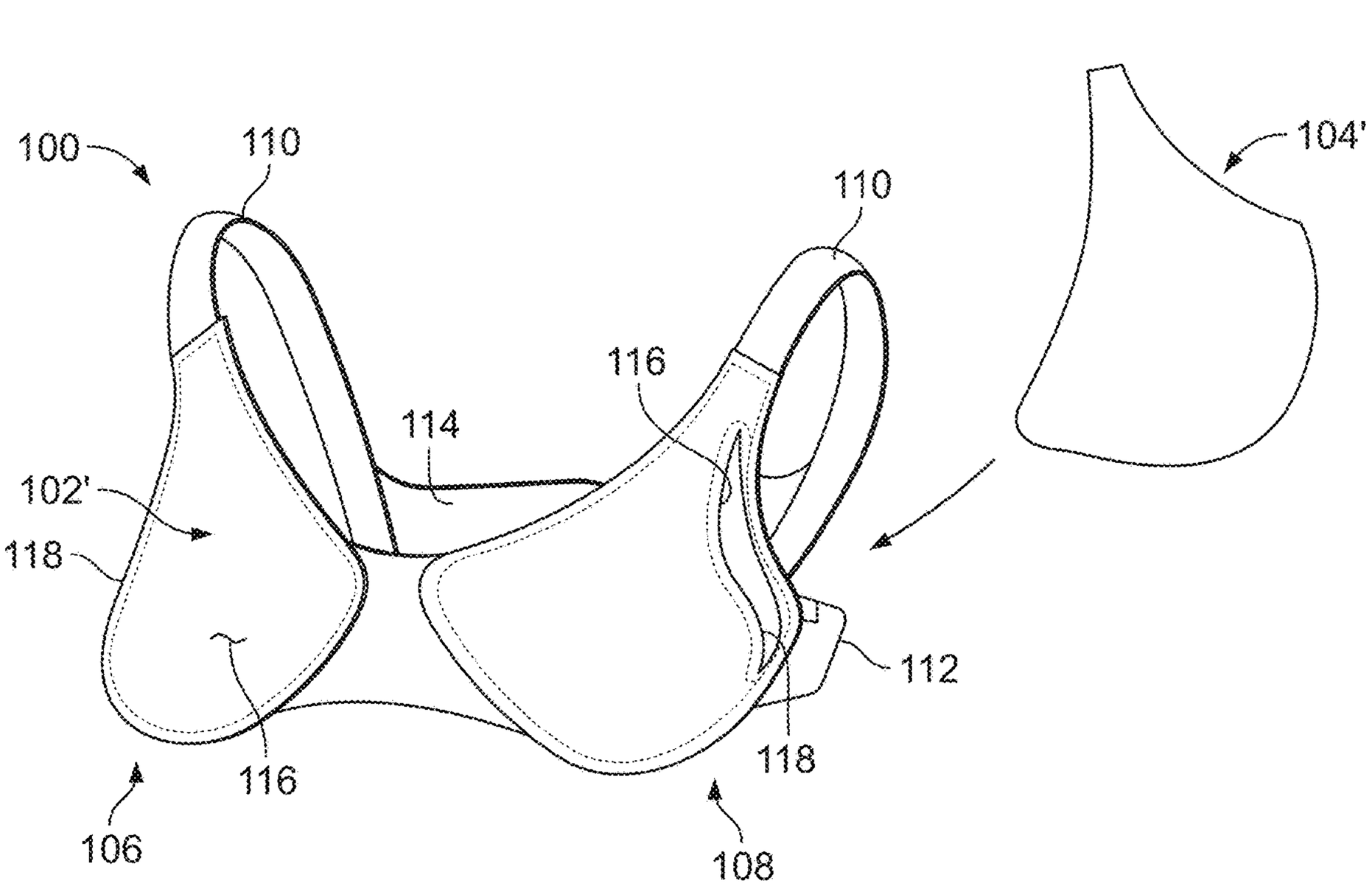
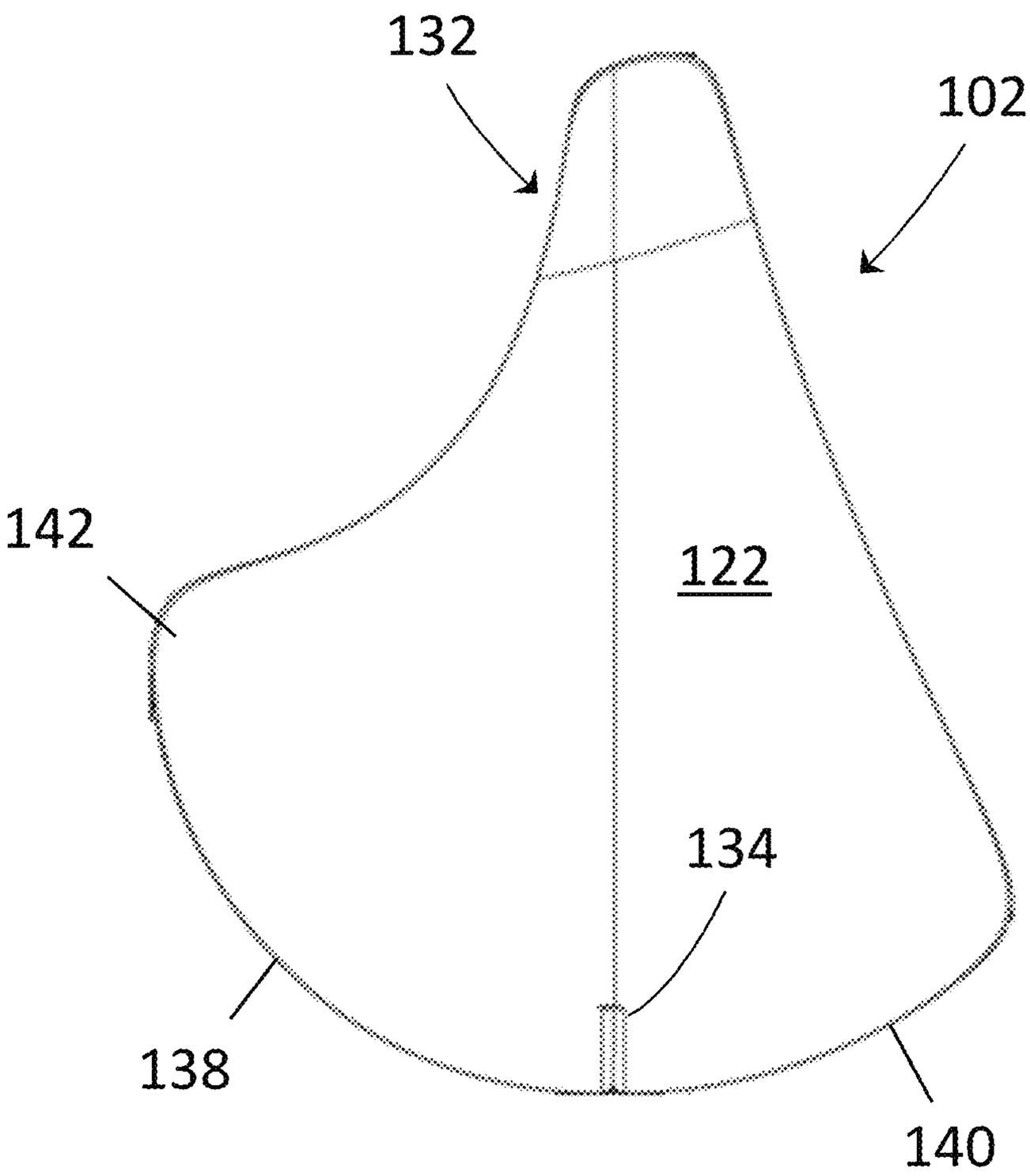


FIG. 1

FIG. 2



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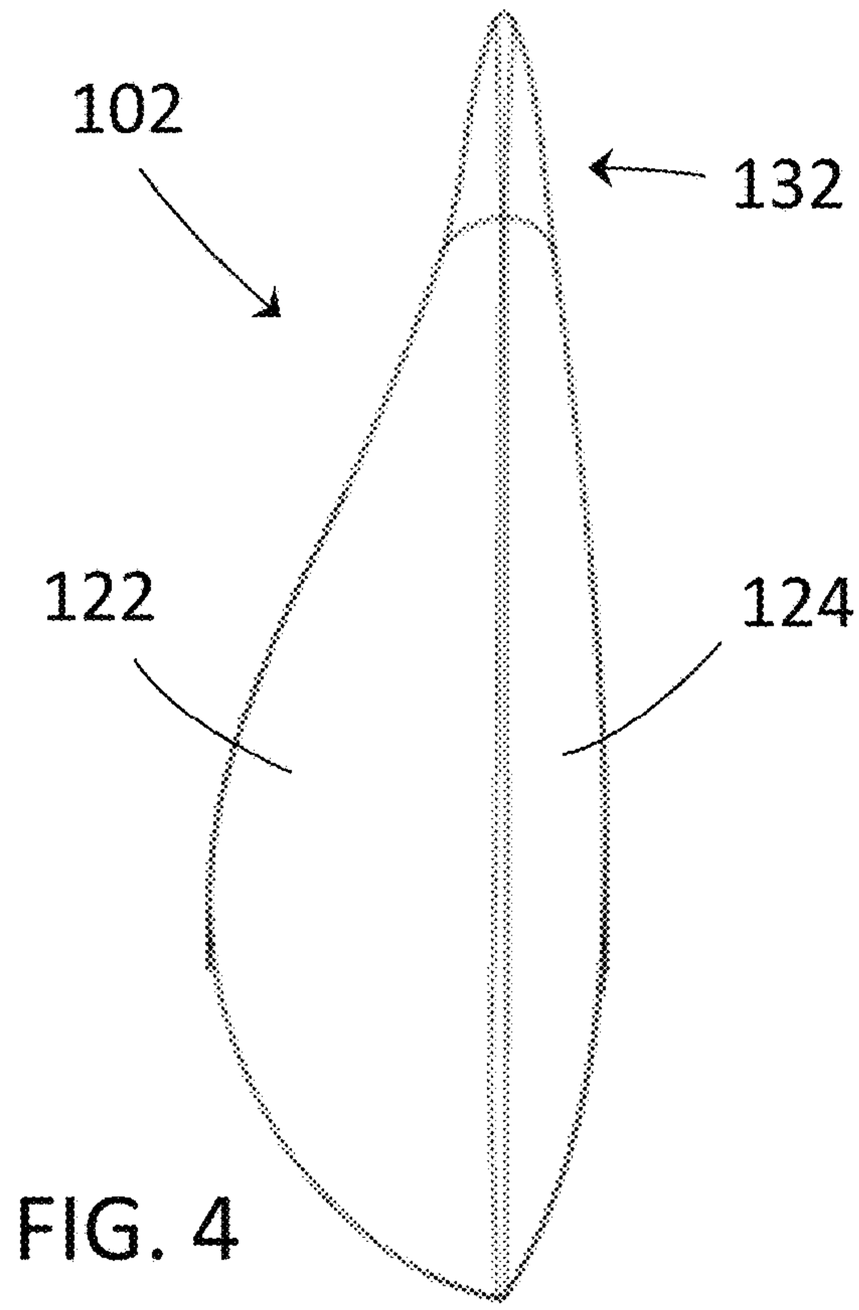


FIG. 4

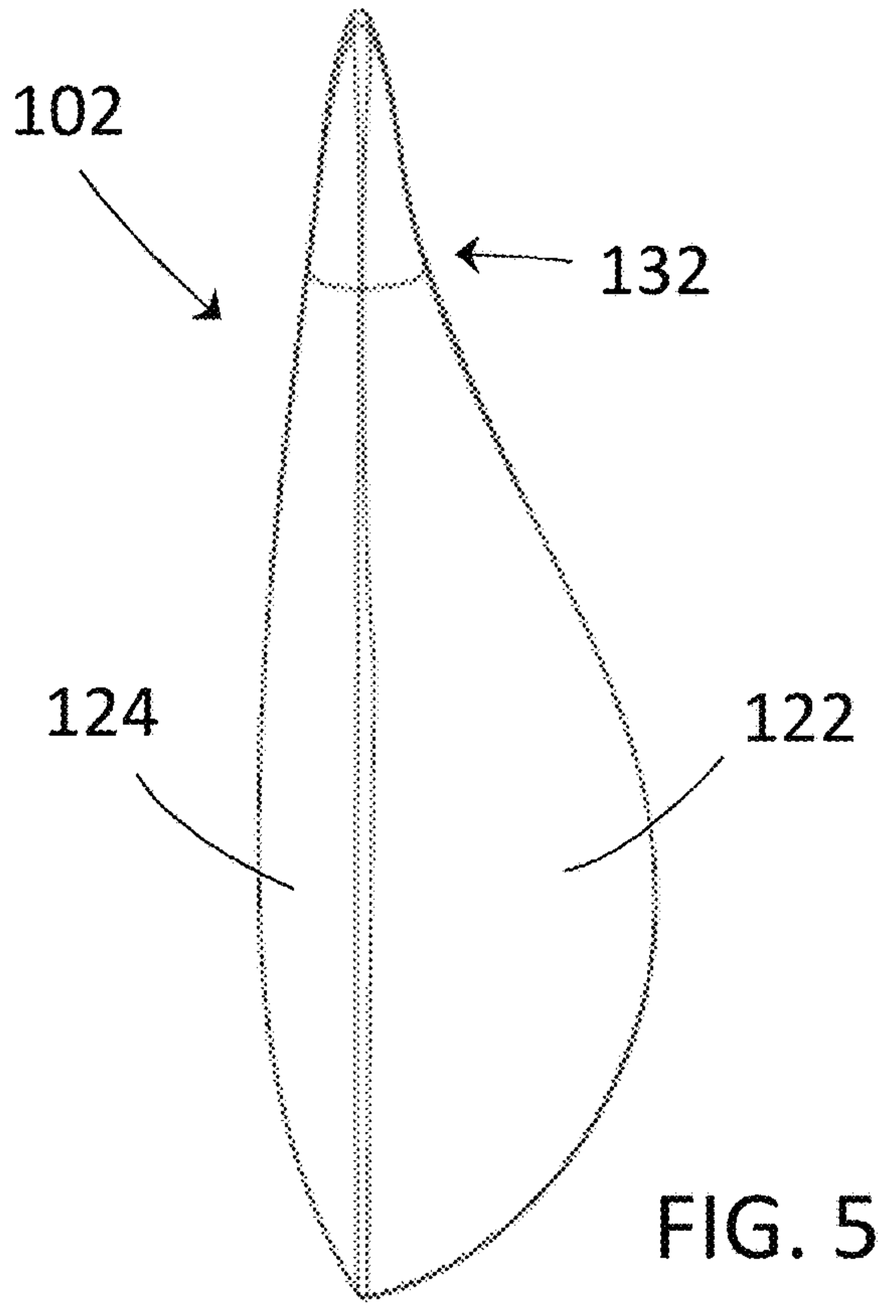
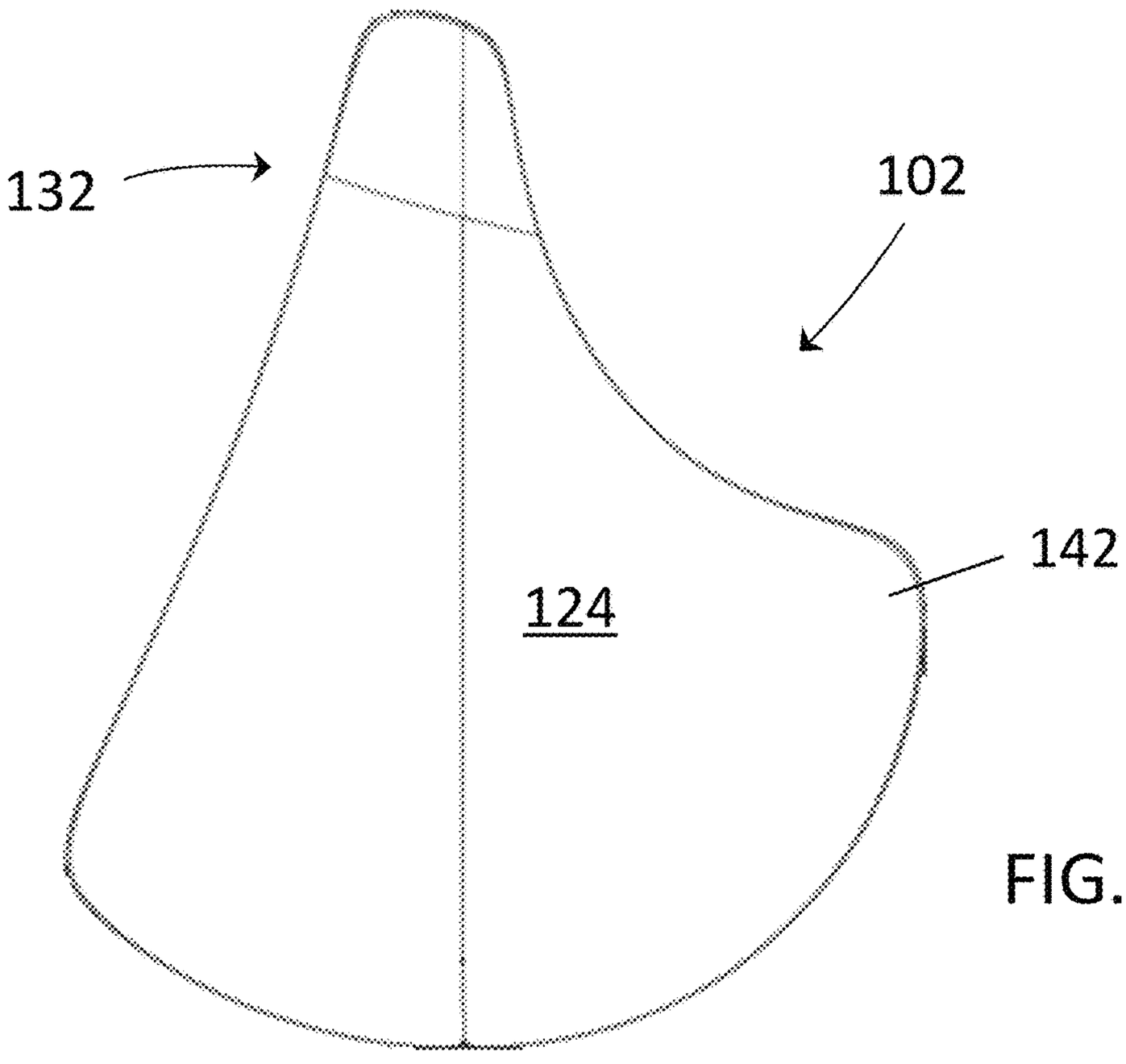


FIG. 5



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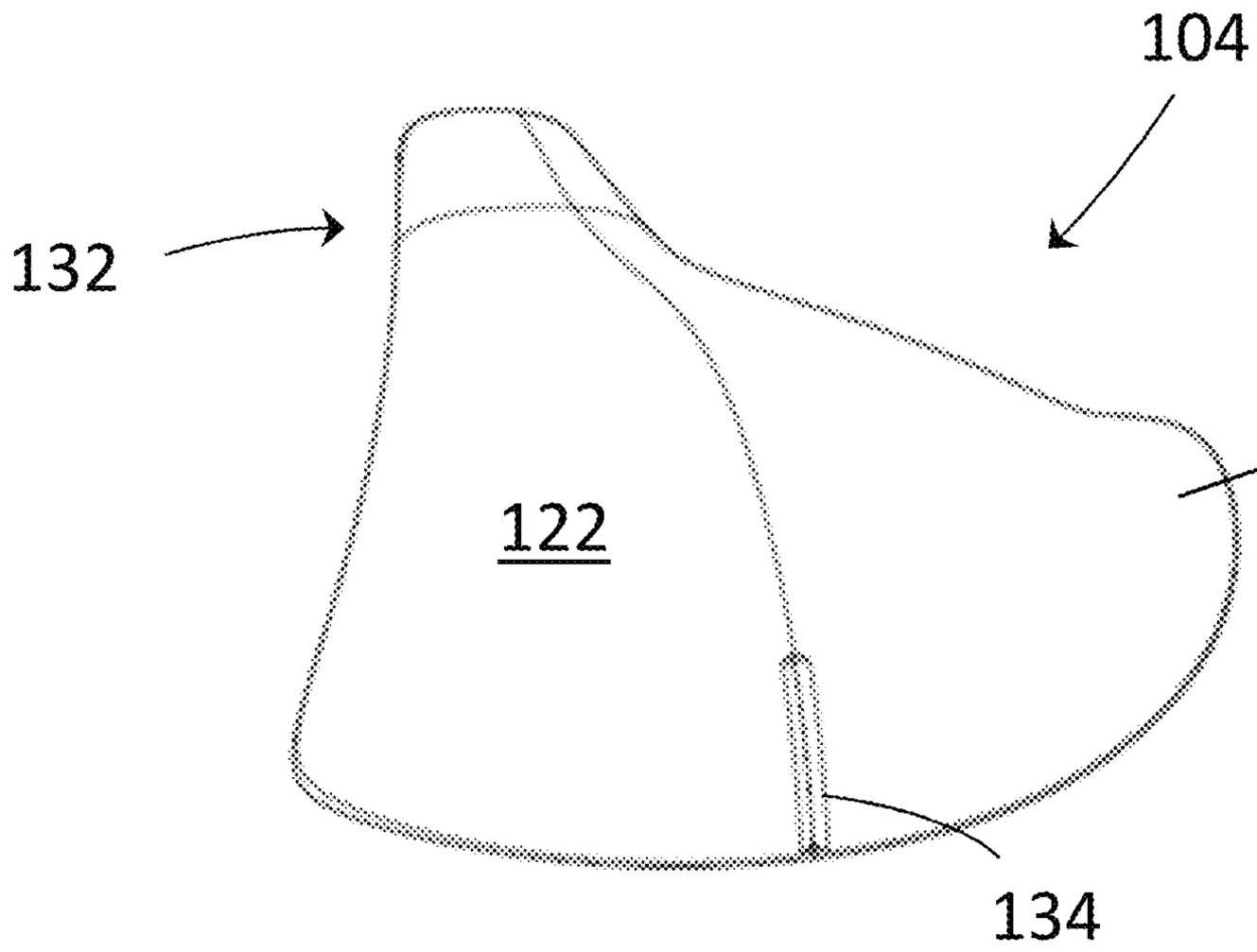
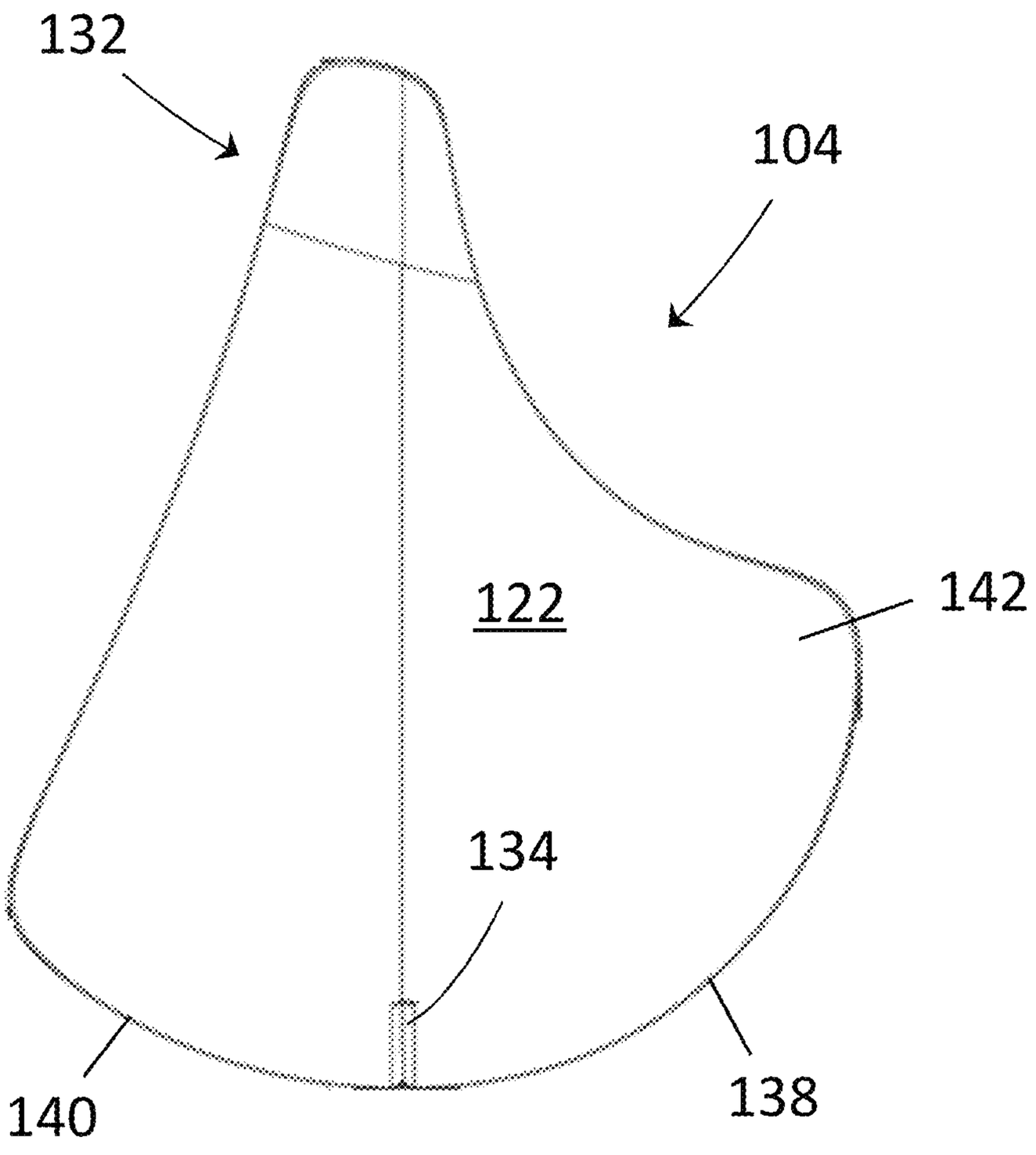


FIG. 7



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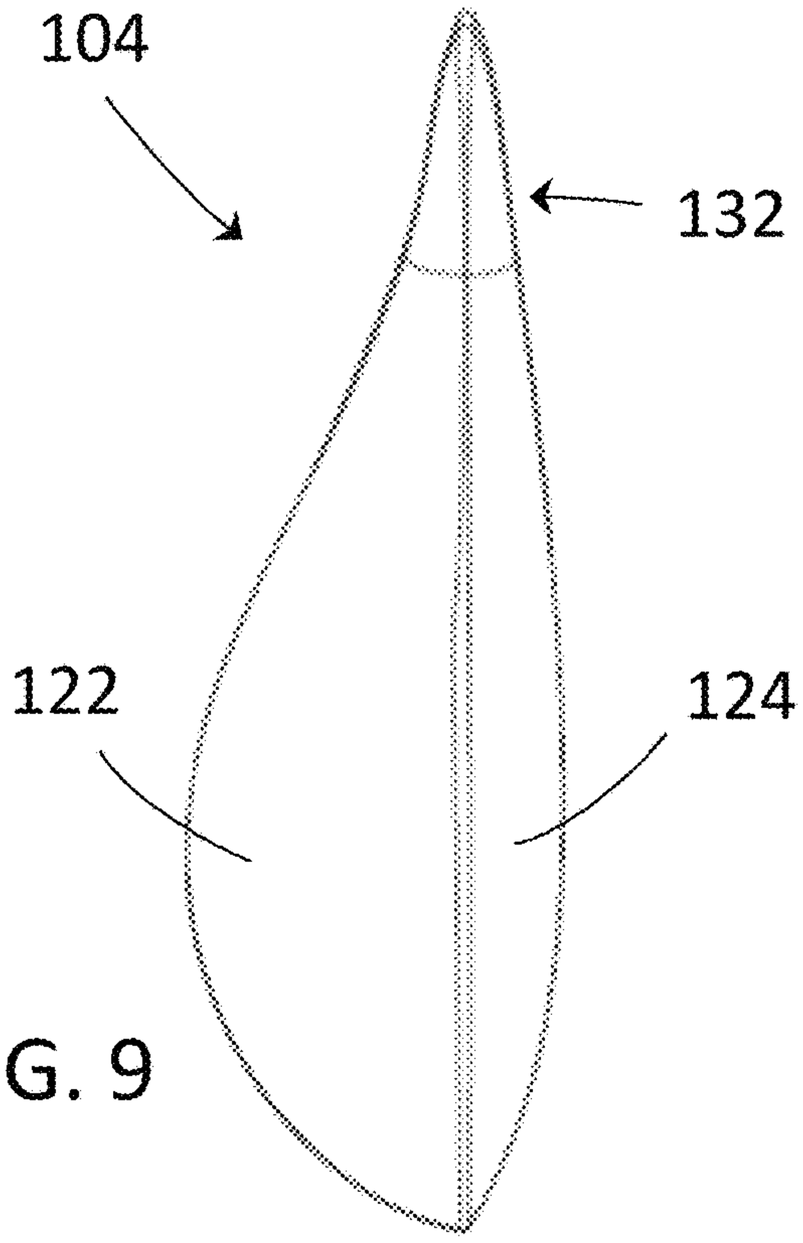

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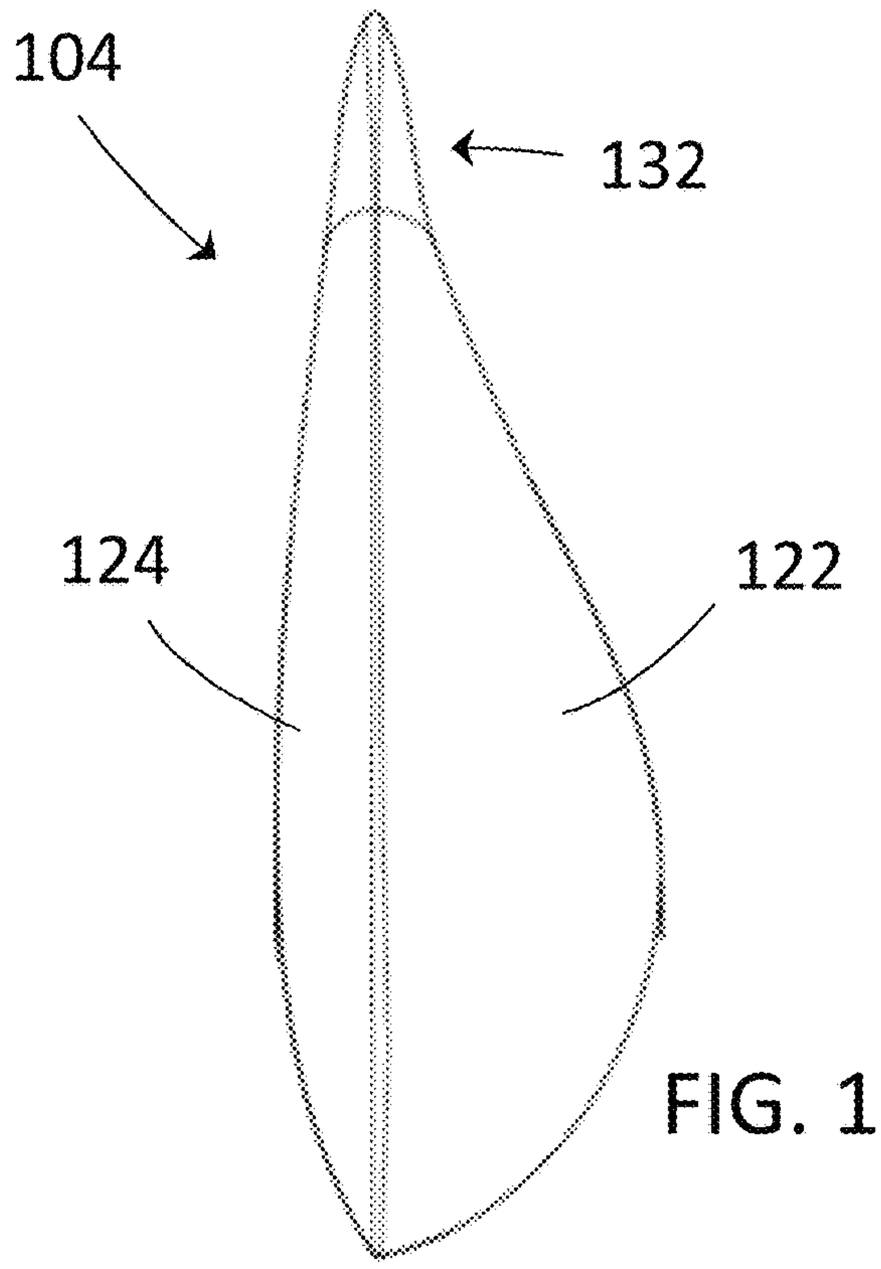
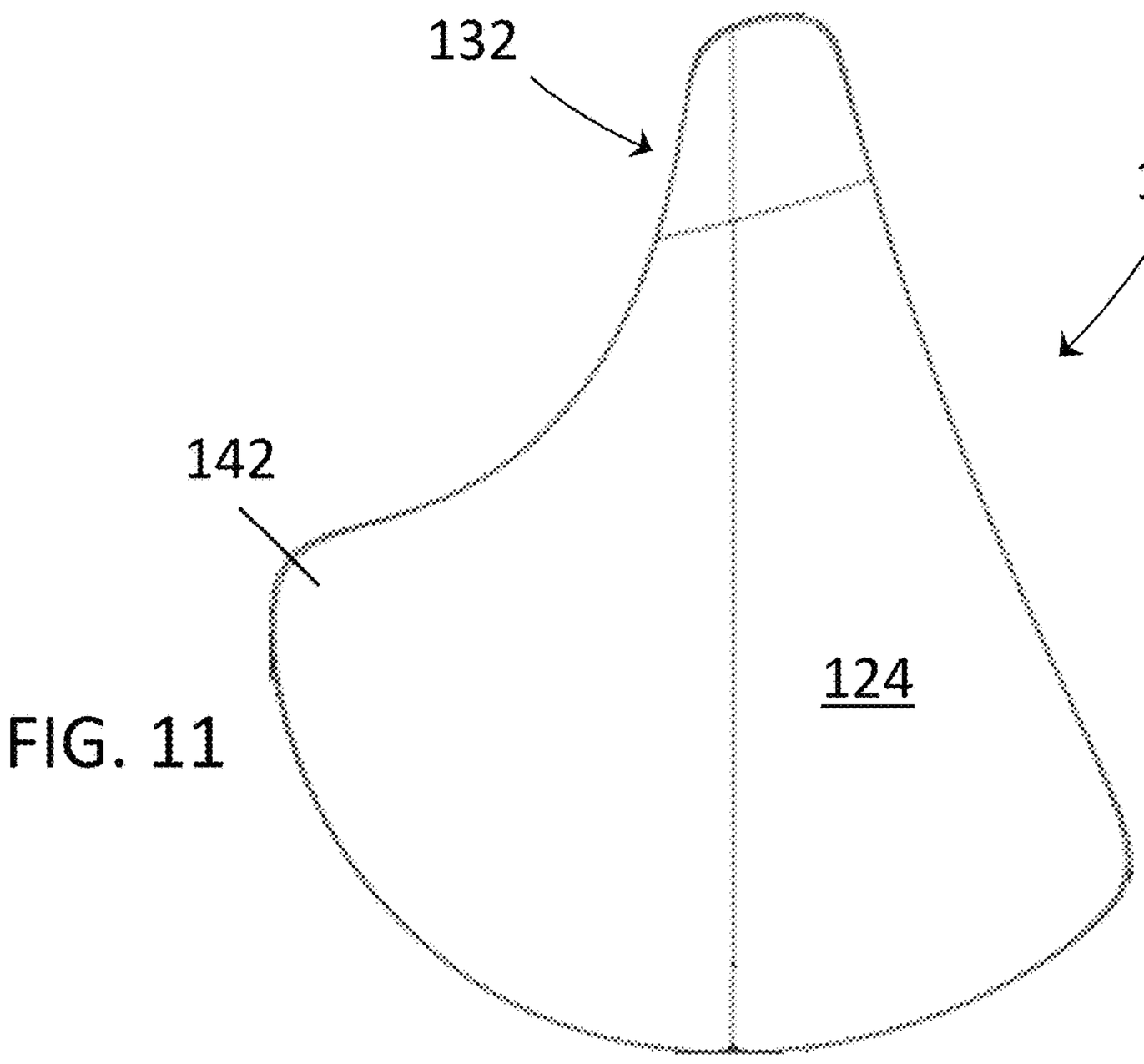


FIG. 10



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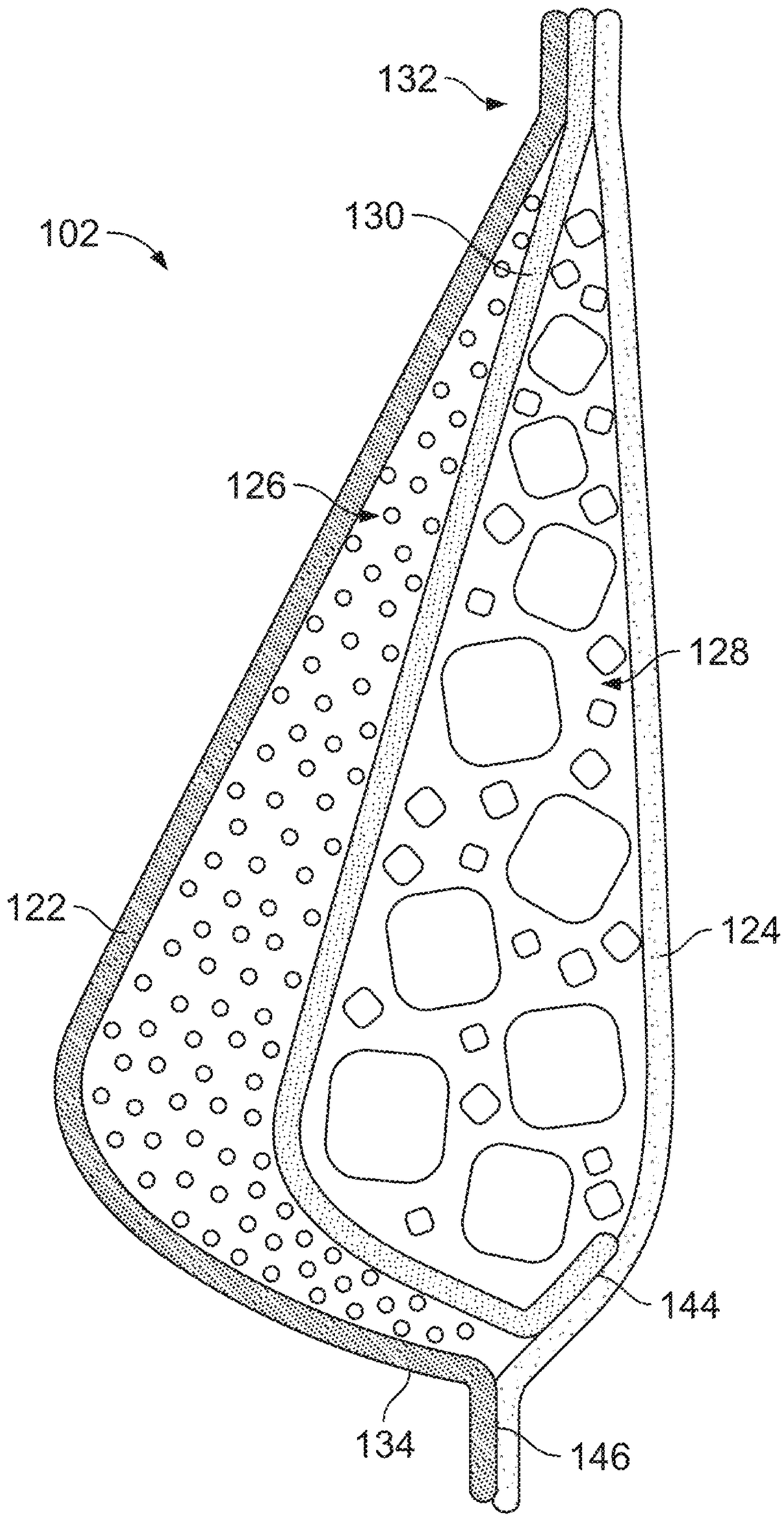

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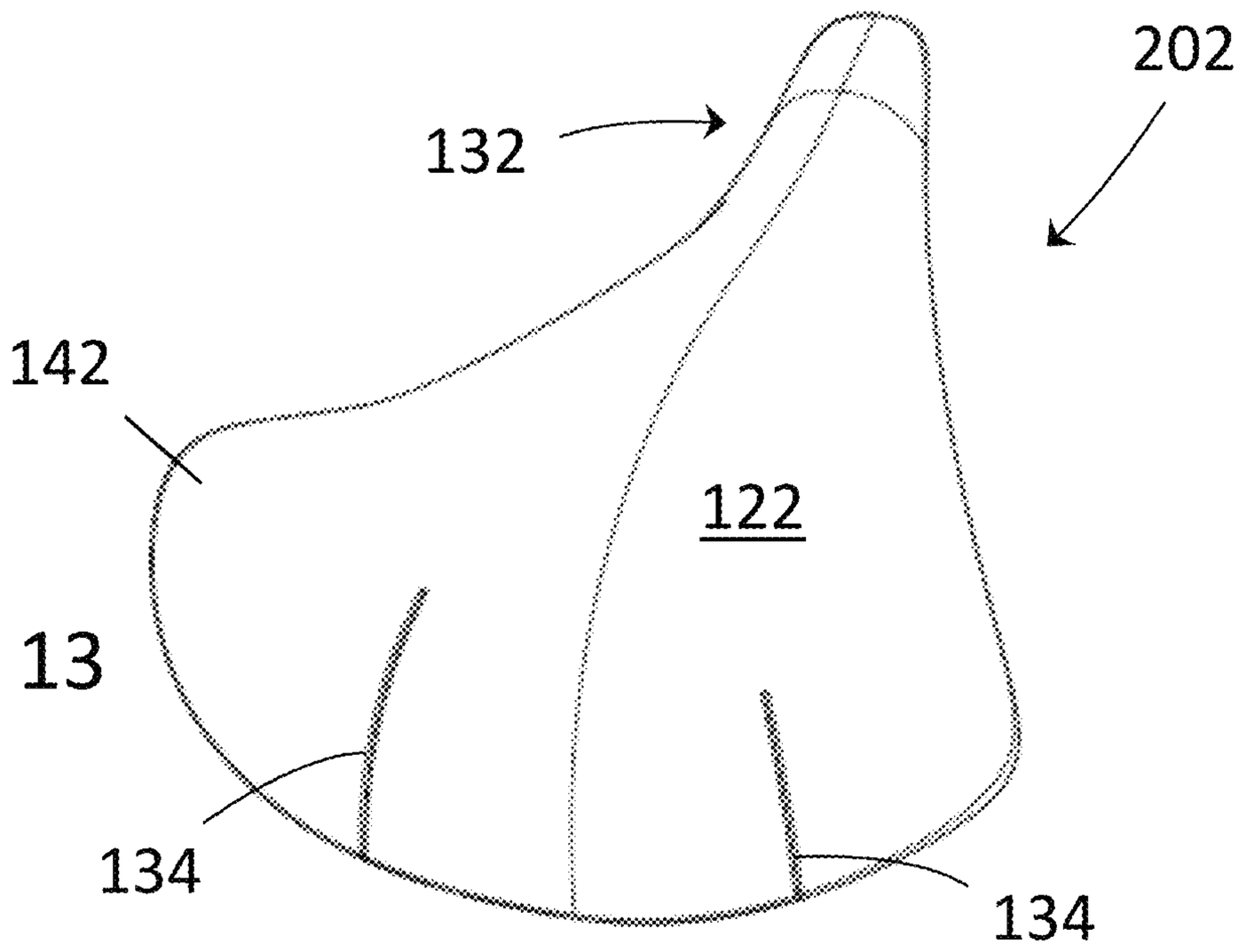

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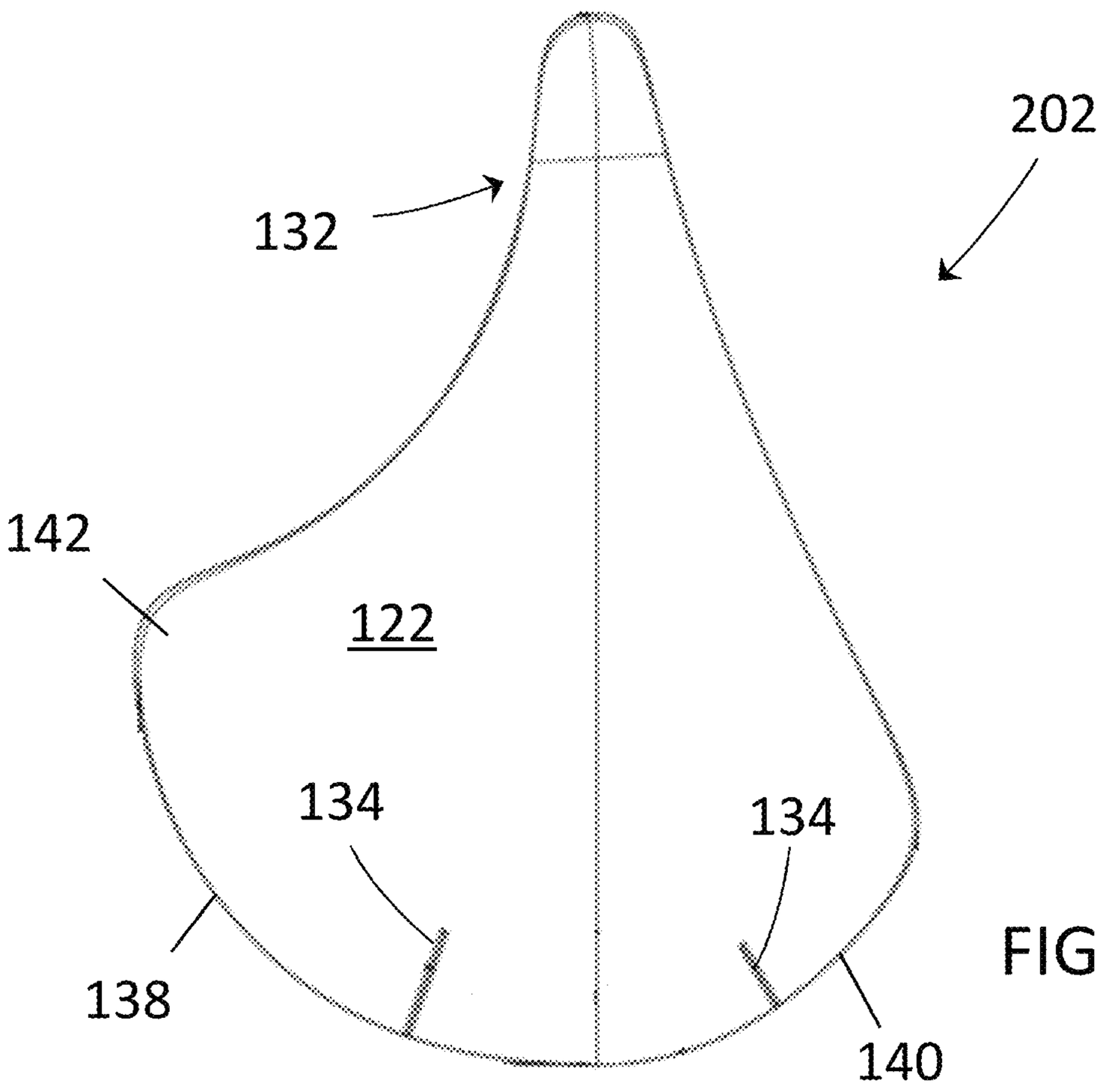

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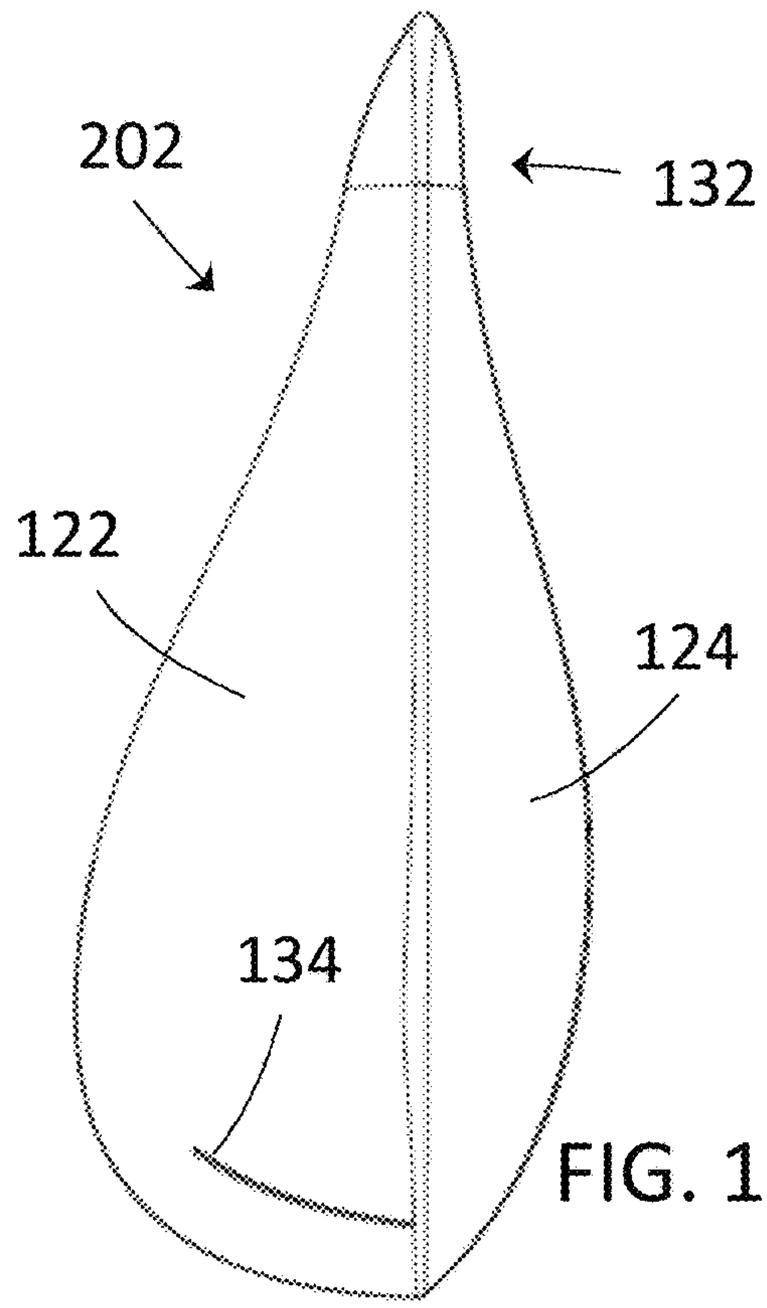

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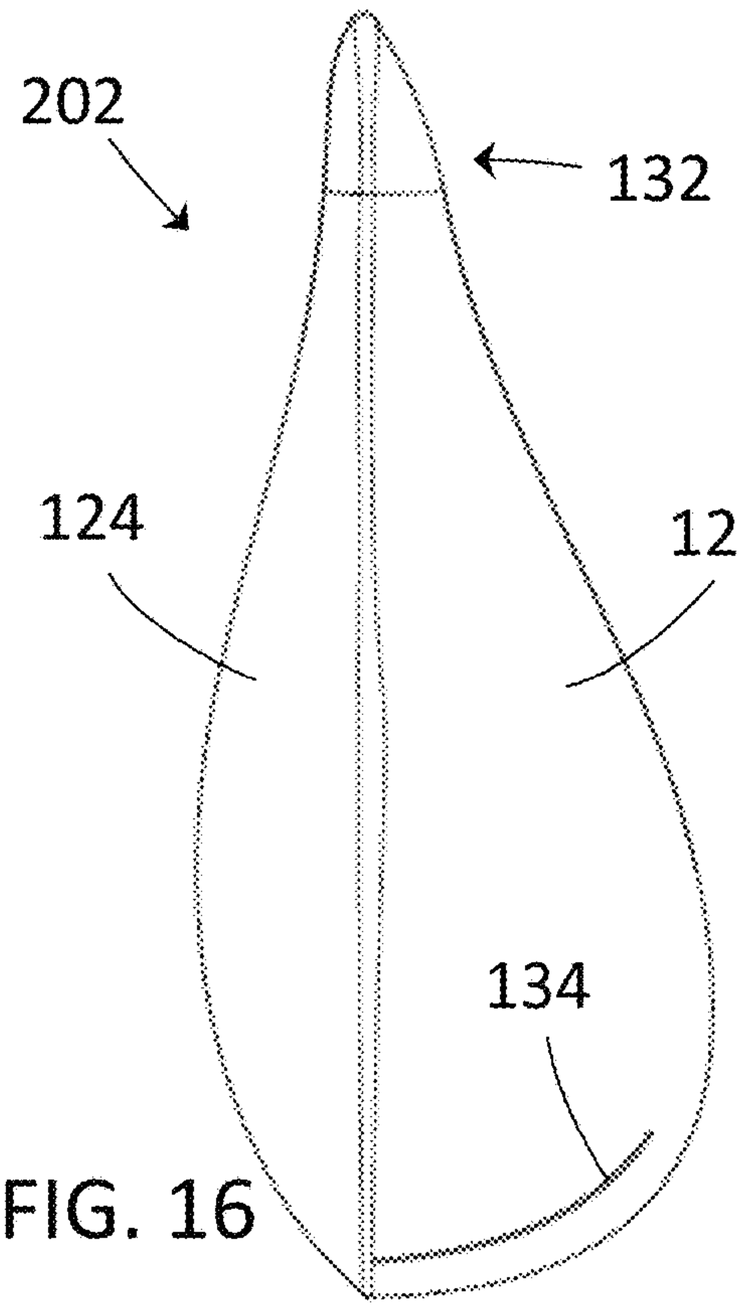

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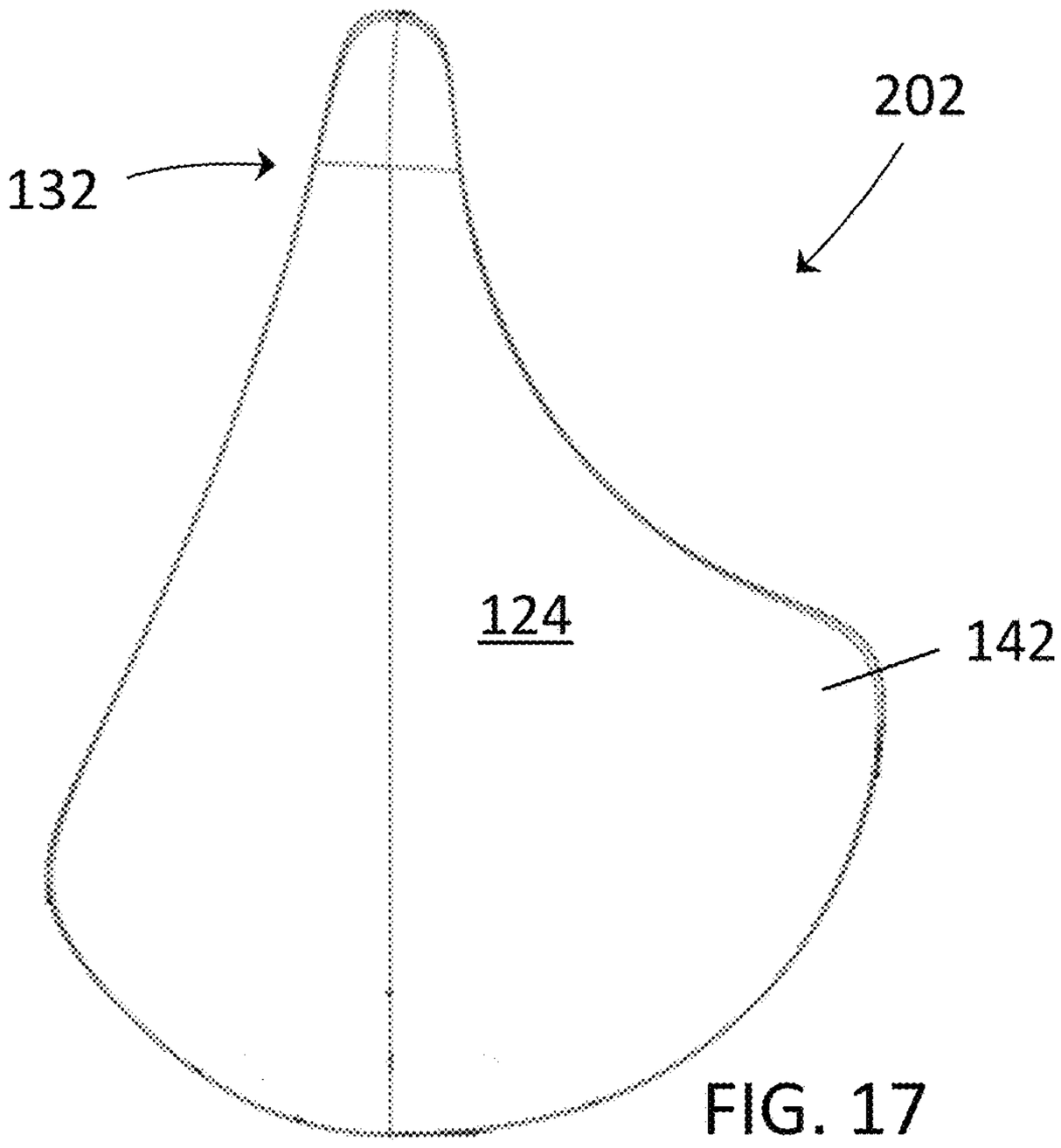

FIG. 17

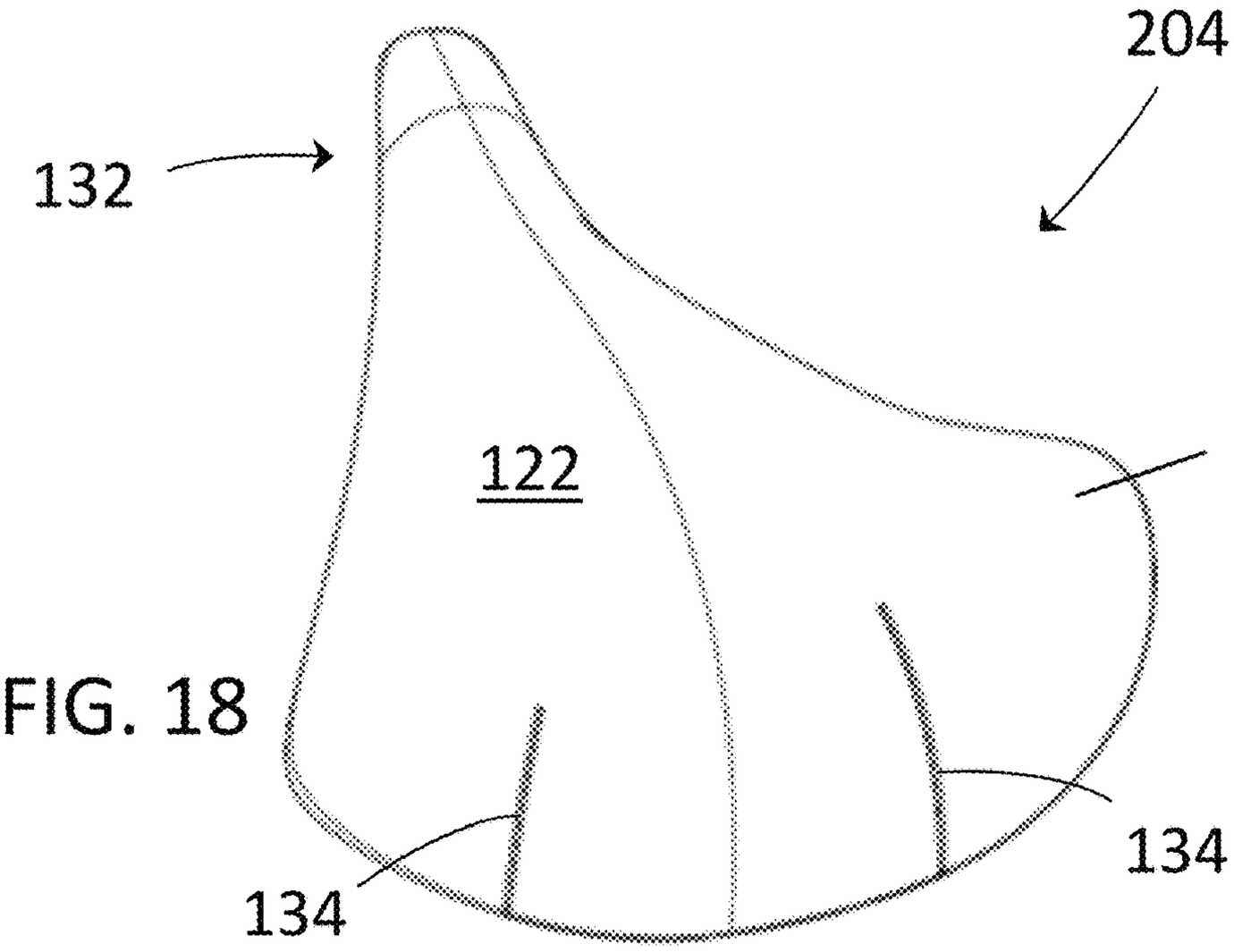

FIG. 18

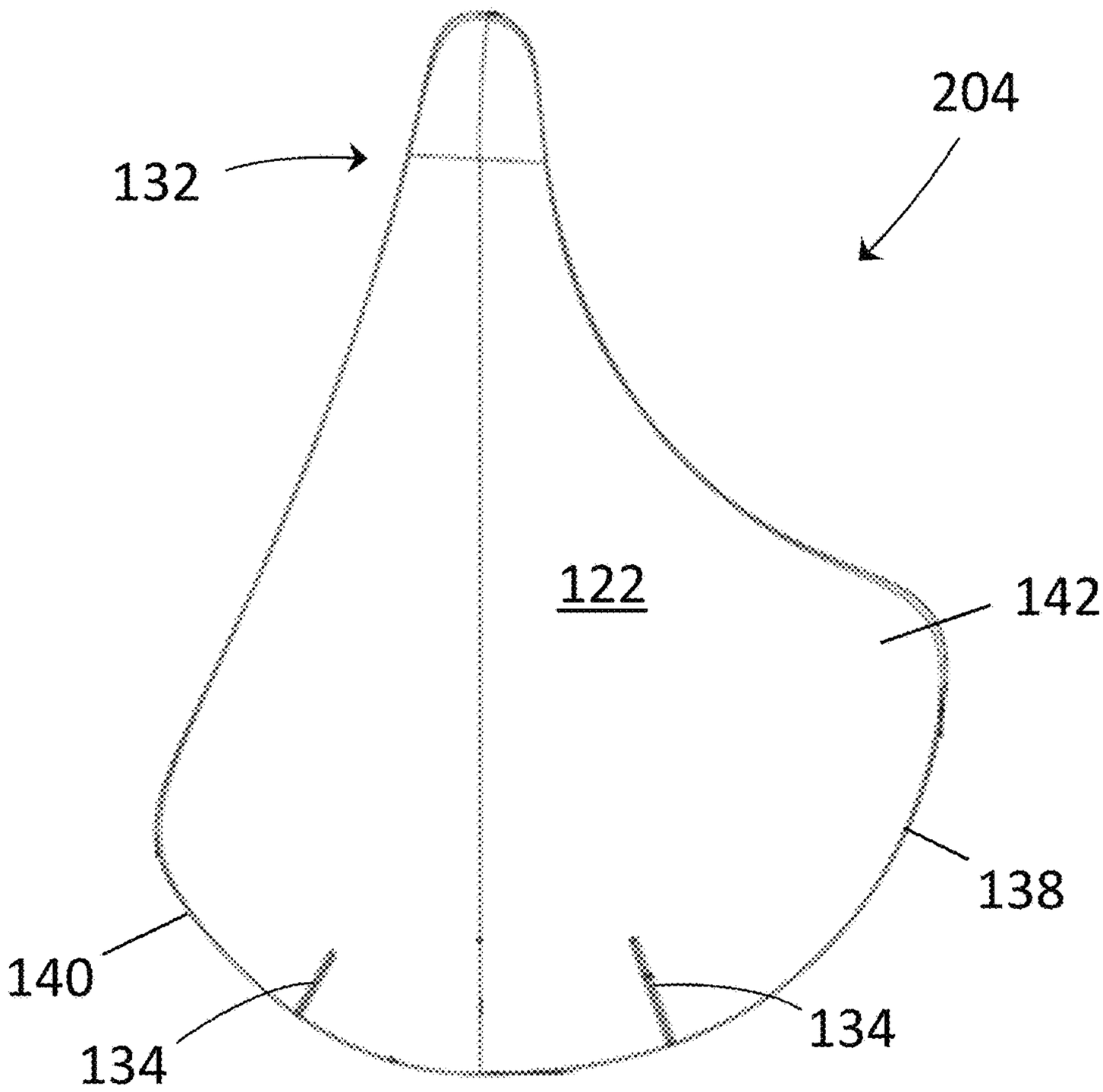

FIG. 19

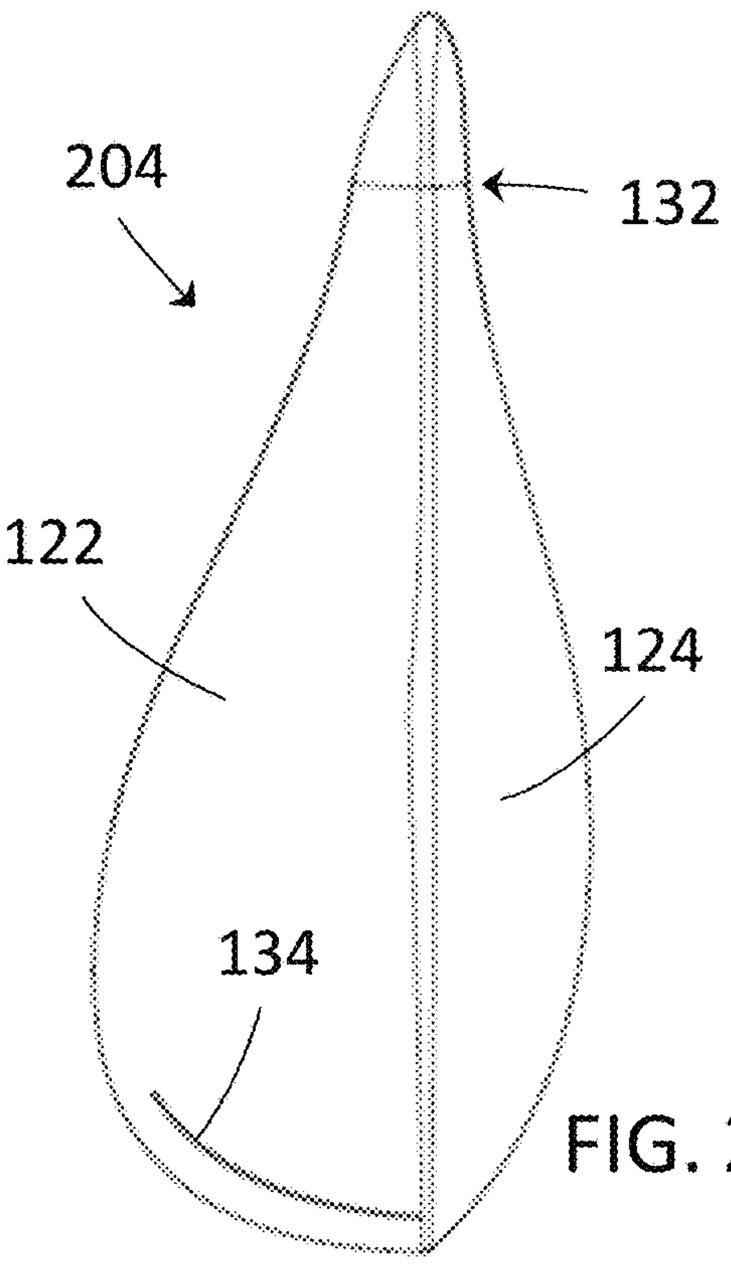

FIG. 20

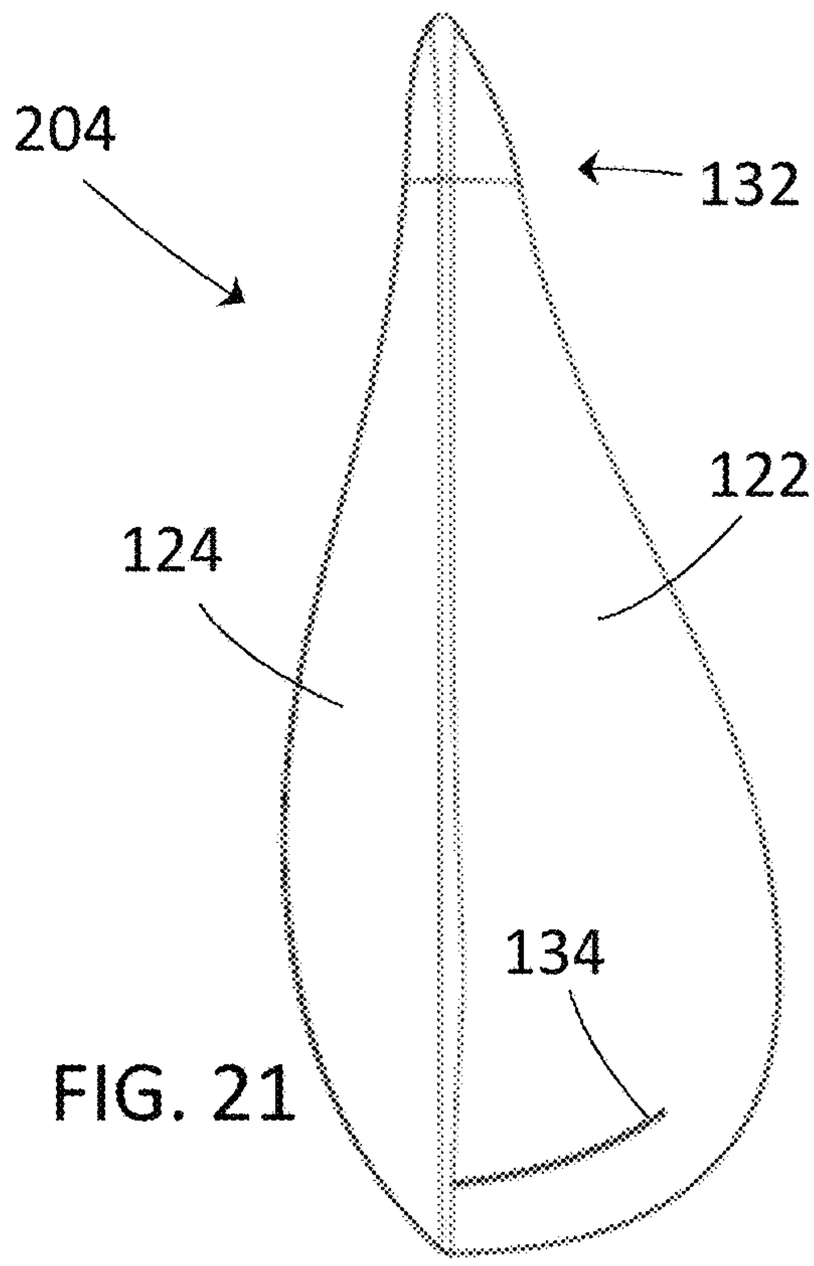

FIG. 21

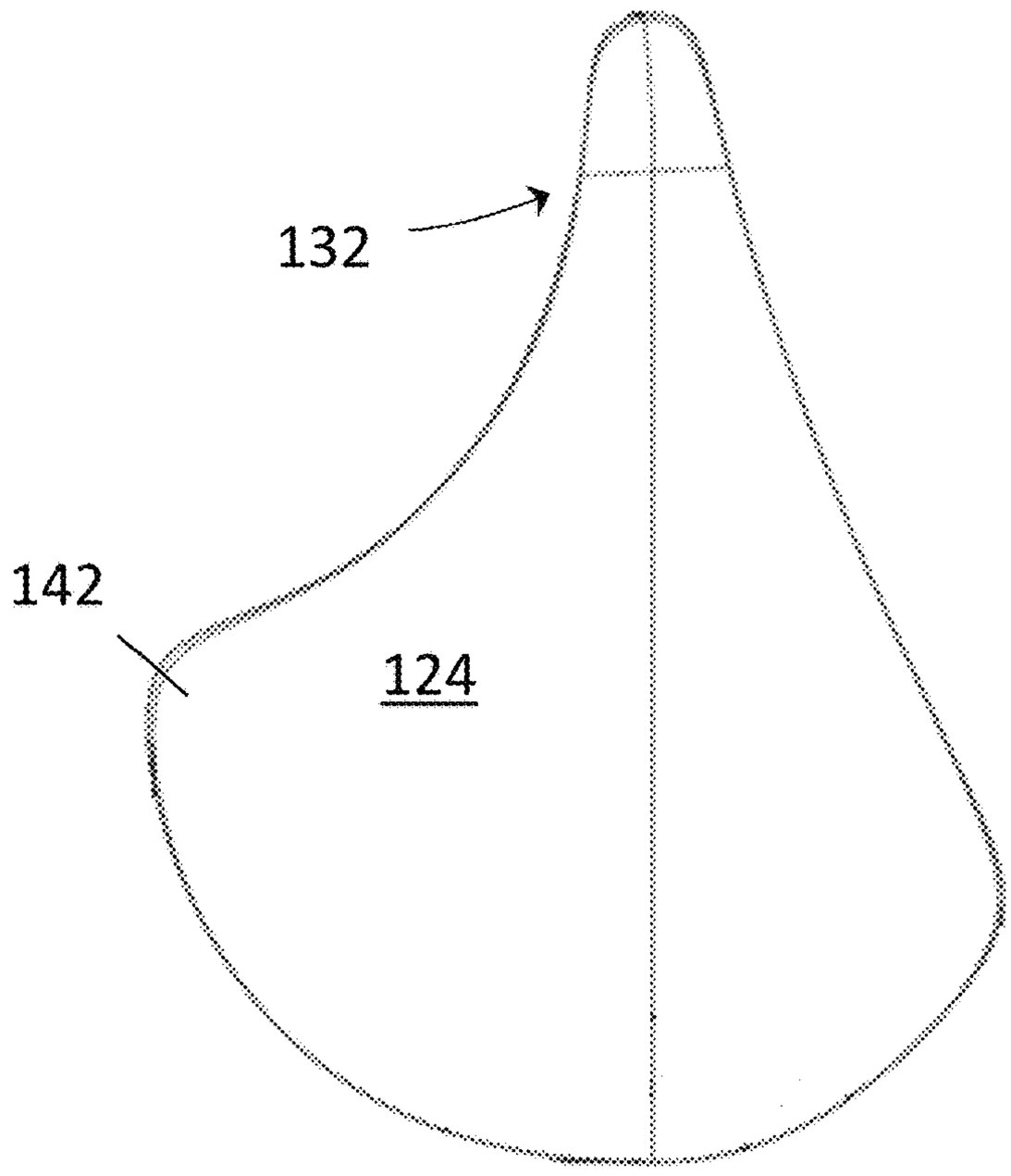

FIG. 22

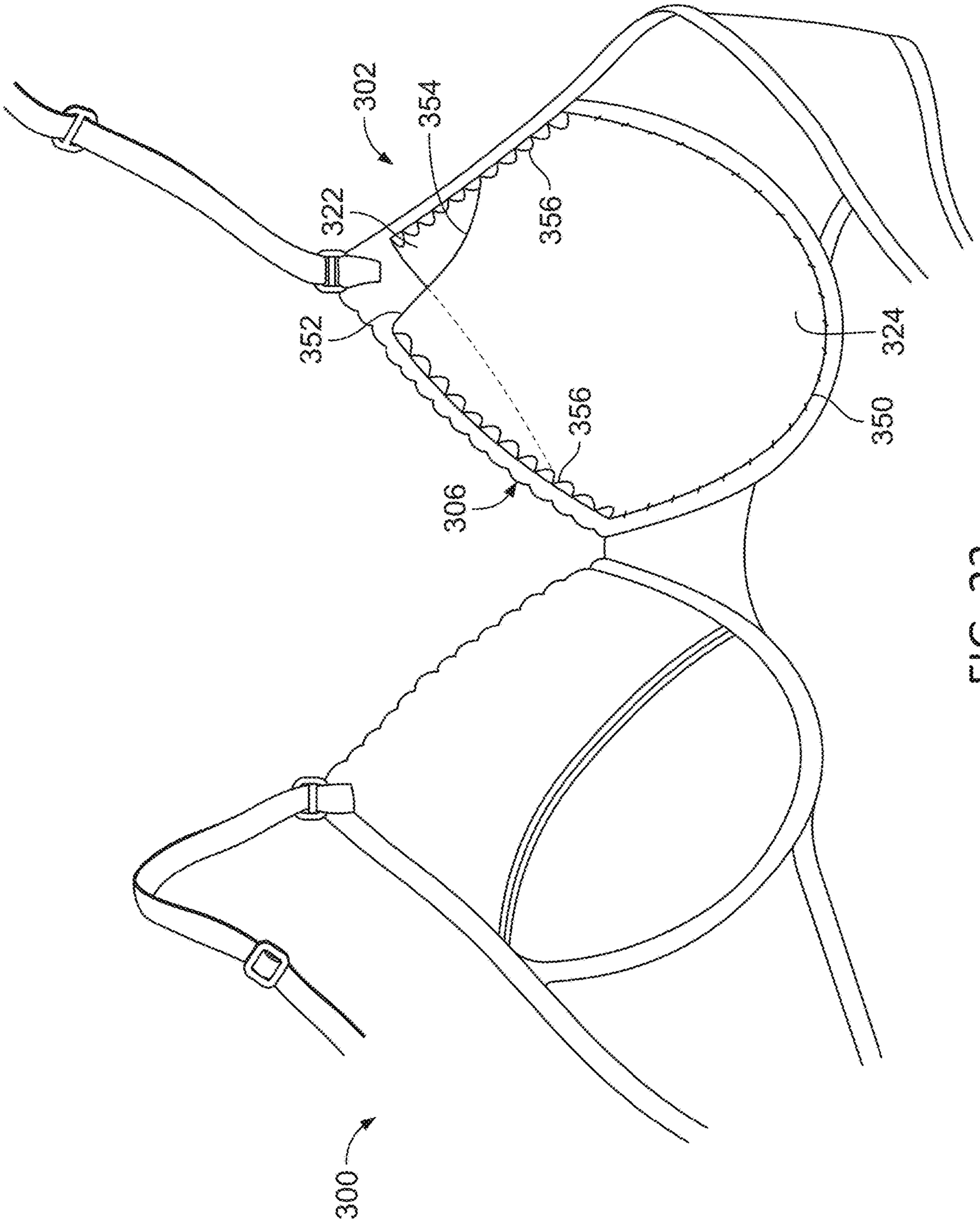

FIG. 23

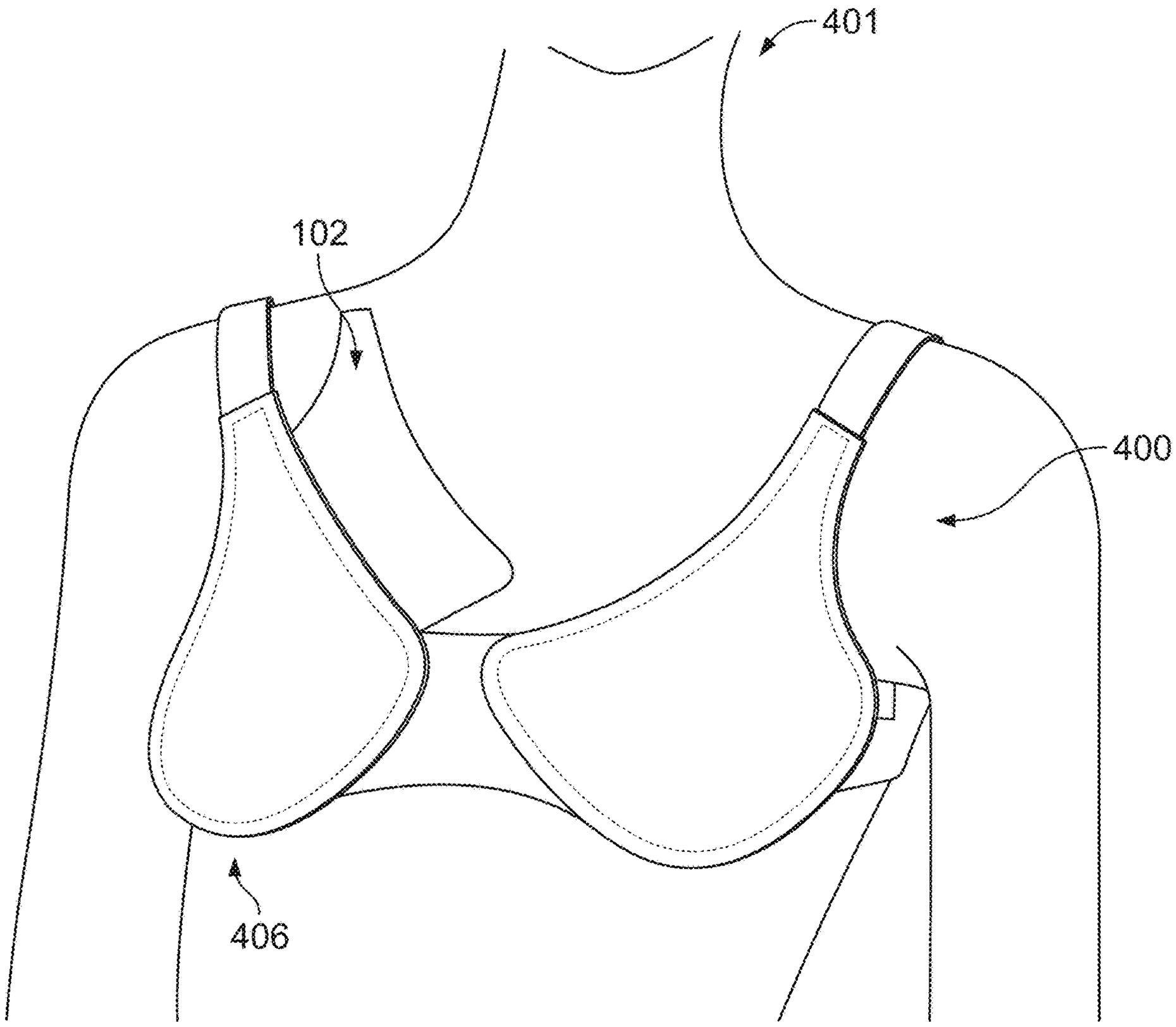

FIG. 24

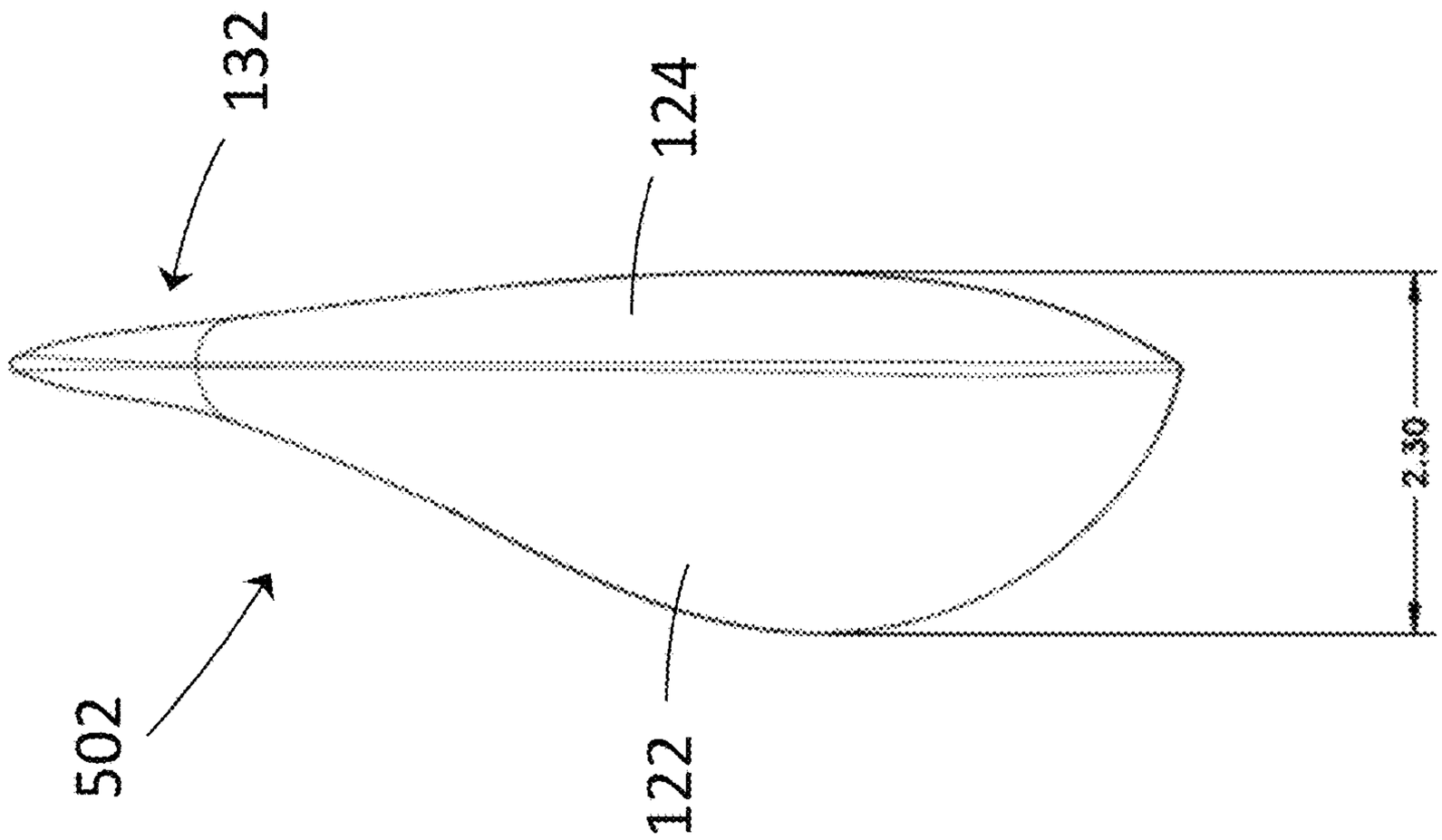

FIG. 26

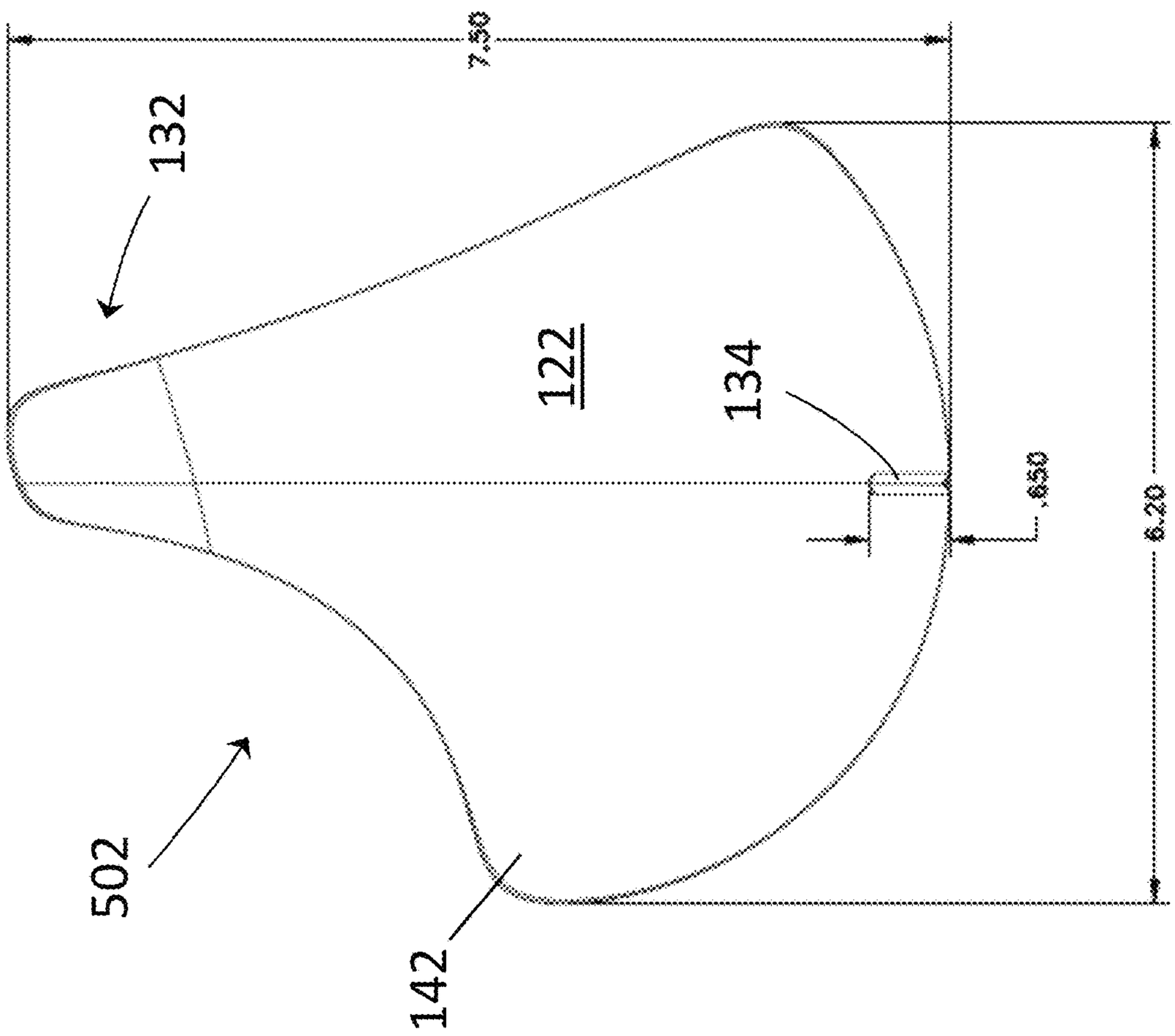

FIG. 25

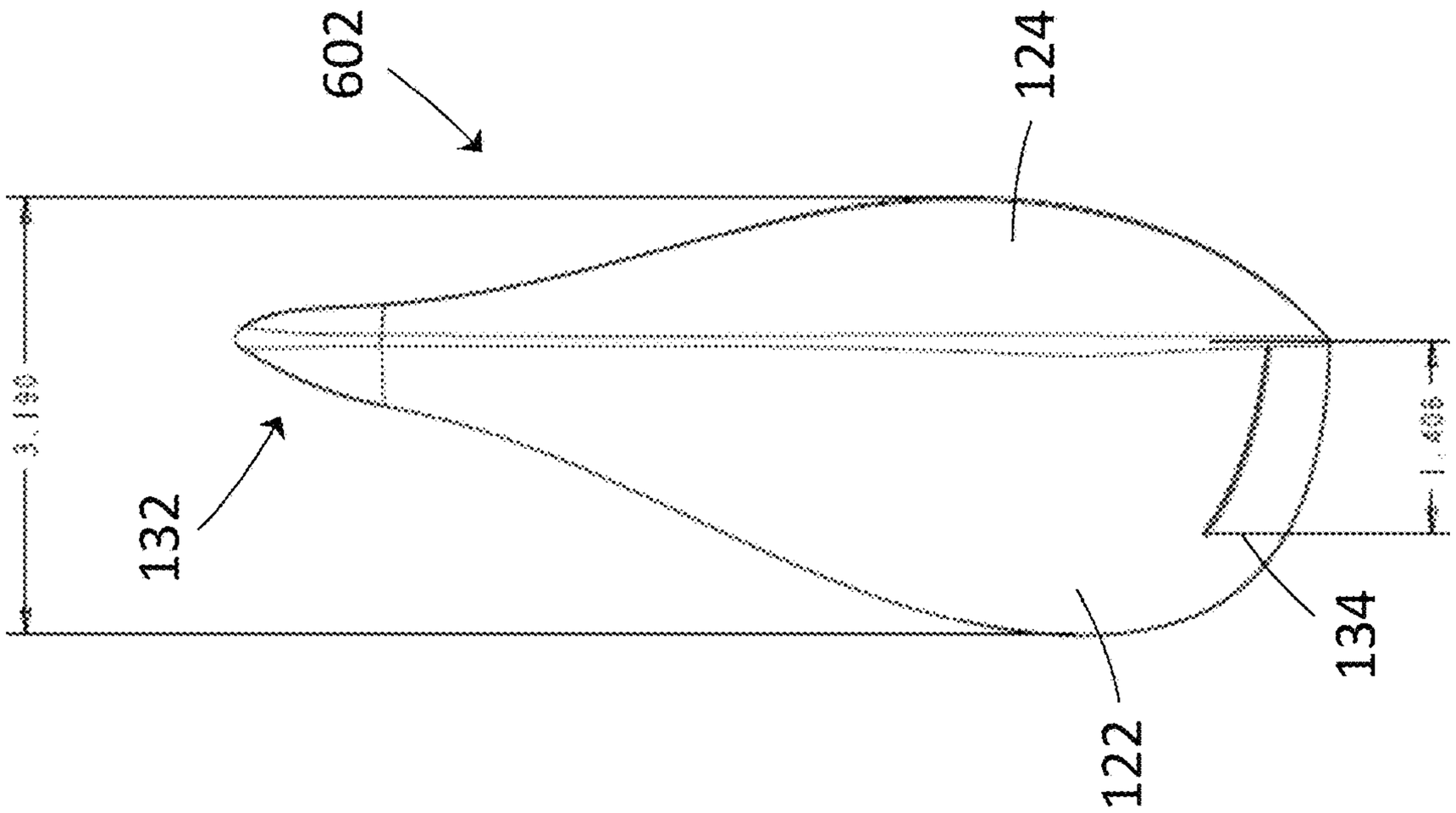
602
124
132
122
134
1.488
3.140

FIG. 28

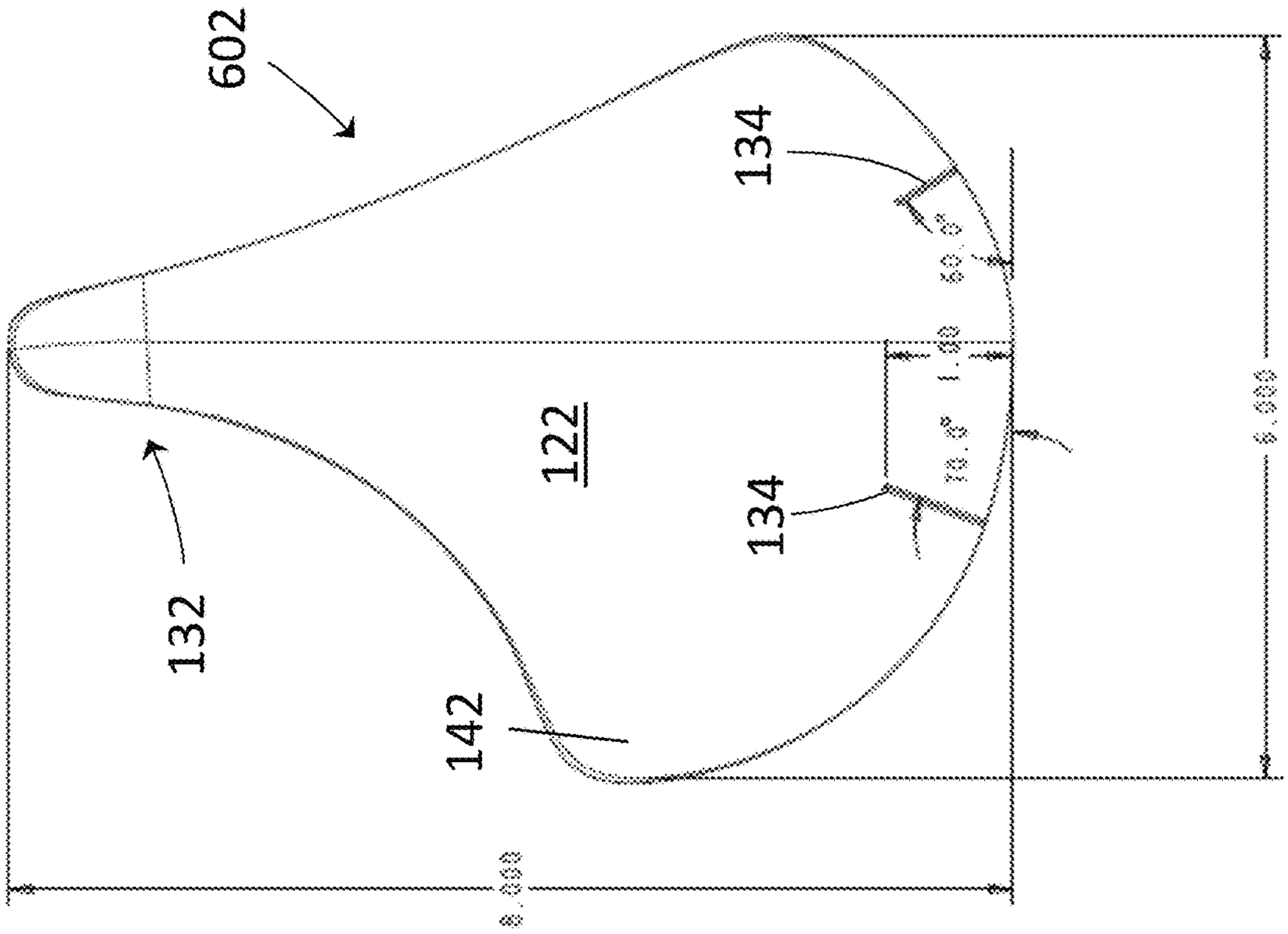
602
134
132
122
142
134
60.0°
10.0°
1.40
6.000
8.000

FIG. 27

ENHANCERS FOR USE WITH GARMENTS

FIELD

The present disclosure generally relates to enhancers for simulating breast tissue and that may be used with or in garments (e.g., bras, camisoles, swimsuits, sports clothing, other garments, etc.), for example, for post-mastectomy individuals or other individuals, which when used and/or worn by the individuals may reproduce (or simulate) natural breast appearances and/or natural breast shapes, etc. for the individuals.

BACKGROUND

This section provides background information related to the present disclosure which is not necessarily prior art.

Often, a diagnosis of invasive breast cancer cells for an individual may lead to the individual having a mastectomy, if chemotherapy and/or radiation treatments do not eliminate the cancer cells. Also, invasive cancers (such as stage **2***b* through stage **4**) may have growths that have progressed outside of the ducts of the breasts and into the surrounding muscle tissue whereby chemotherapy and/or radiation treatments may not be options. In connection therewith, a mastectomy is a surgical procedure to remove (e.g., cut, etc.) the breast tissue off an individual's torso in order to remove the active or inactive cancer cells before metastasizing to other organs and throughout the individual's body. In some cases, election of a mastectomy by an individual may occur after genetic testing, even if the cancer cells have not yet manifested themselves (and even in lieu of chemotherapy and/or radiation).

SUMMARY

This section provides a general summary of the disclosure, and is not a comprehensive disclosure of its full scope or all of its features.

The present disclosure generally relates to enhancers (e.g., for simulating breast tissue, etc.) for use with garments. According to one aspect of the present disclosure, an enhancer for simulating breast tissue includes a first layer of material and a second layer of material coupled to the first layer of material, where the second layer of material includes a wicking material. The enhancer also includes a third layer of material and a fourth layer of material both disposed generally between the first layer of material and the second layer of material (e.g., within a cavity defined by the first and second layers of material, etc.). In one example, the third layer of material includes a plurality of monprene beads, and the fourth layer of material includes a plurality of open cell poly foam pieces. The enhancer further includes a fifth layer of material disposed at least partly between the third layer of material and the fourth layer of material, where the fifth layer of material is configured to inhibit mixing of the third and fourth layers of material (e.g., the monprene beads of the third layer and the open cell poly foam pieces of the fourth layer, etc.).

According to another aspect of the present disclosure, an enhancer for simulating breast tissue includes a body or shell (e.g., defining a cavity, etc.), a plurality of monprene beads disposed within the body (e.g., within the cavity defined by the body, etc.), and a plurality of open cell poly foam pieces disposed within the body (e.g., also within the cavity defined by the body, etc.). The monprene beads and the open cell poly foam pieces are separated within the body to inhibit mixing of the monprene beads and the open cell poly foam pieces, and are configured to simulate the appearance and/or shape of a breast.

According to another aspect of the present disclosure, a garment (e.g., a bra, a camisole, a swimsuit top, sports clothing, etc.) configured to be worn by individuals (e.g., post-mastectomy individuals, etc.) includes one or more of the above enhancers.

Further aspects and areas of applicability will become apparent from the description provided herein. It should be understood that various aspects of this disclosure may be implemented individually or in combination with one or more other aspects. It should also be understood that the description and specific examples herein are intended for purposes of illustration only and are not intended to limit the scope of the present disclosure.

DRAWINGS

The drawings described herein are for illustrative purposes only of selected embodiments and not all possible implementations and are not intended to limit the scope of the present disclosure.

FIG. **1** is a front perspective view of a garment including first and second enhancers (e.g., right and left enhancers from a perspective of an individual wearing the garment, etc.) according to one example embodiment of the present disclosure, for instance, where the garment and enhancers may be used/worn by an individual (e.g., a post-mastectomy individual, etc.);

FIG. **2** is a front perspective view of a first enhancer (e.g., a right enhancer from a perspective of an individual wearing a garment including the enhancer, etc.) according to another example embodiment of the present disclosure, and where the first enhancer is suitable for use with the garment of FIG. **1**;

FIG. **3** is front view of the first enhancer of FIG. **2**;

FIG. **4** is a right side view of the first enhancer of FIG. **2**;

FIG. **5** is a left side view of the first enhancer of FIG. **2**;

FIG. **6** is a rear view of the first enhancer of FIG. **2**;

FIG. **7** is a front perspective view of a second enhancer (e.g., a left enhancer from a perspective of an individual wearing a garment including the enhancer, etc.) according to another example embodiment of the present disclosure, and where the second enhancer is suitable for use with the garment of FIG. **1**;

FIG. **8** is front view of the second enhancer of FIG. **7**;

FIG. **9** is a right side view of the second enhancer of FIG. **7**;

FIG. **10** is a left side view of the second enhancer of FIG. **7**;

FIG. **11** is a rear view of the second enhancer of FIG. **7**;

FIG. **12** is a side sectional view consistent with (and representative of) both the first and second enhancers of FIGS. **2** and **7**;

FIG. **13** is a front perspective view of a first enhancer (e.g., a right enhancer from a perspective of an individual wearing a garment including the enhancer, etc.) according to another example embodiment of the present disclosure, and where the first enhancer is suitable for use with the garment of FIG. **1**;

FIG. **14** is front view of the first enhancer of FIG. **13**;

FIG. **15** is a right side view of the first enhancer of FIG. **13**;

FIG. **16** is a left side view of the first enhancer of FIG. **13**;

FIG. **17** is a rear view of the first enhancer of FIG. **13**;

FIG. **18** is a front perspective view of a second enhancer (e.g., a left enhancer from a perspective of an individual wearing a garment including the enhancer, etc.) according to another example embodiment of the present disclosure, where the first enhancer is suitable for use with the garment of FIG. **1**;

FIG. **19** is front view of the second enhancer of FIG. **18**;

FIG. **20** is a right side view of the second enhancer of FIG. **18**;

FIG. **21** is a left side view of the second enhancer of FIG. **18**;

FIG. **22** is a rear view of the second enhancer of FIG. **18**;

FIG. **23** is a rear view of an enhancer according to still another example embodiment of the present disclosure, where the enhancer is included in a cup of a bra and illustrating example stitching coupling the enhancer to an inside of the cup of the bra;

FIG. **24** illustrates another use of an enhancer according to an example embodiment of the present disclosure, where the enhancer may be positioned within a cup of a garment worn by an individual between the garment and a portion of the individuals' body;

FIGS. **25-26** illustrate a first enhancer (e.g., a right enhancer from a perspective of an individual wearing a garment including the enhancer, etc.) according to a further example embodiment of the present disclosure, where the first enhancer is suitable for use with the garment of FIG. **1**; and

FIGS. **27-28** illustrate a first enhancer (e.g., a right enhancer from a perspective of an individual wearing a garment including the enhancer, etc.) according to still a further example embodiment of the present disclosure, where the first enhancer is suitable for use with the garment of FIG. **1**.

Corresponding reference numerals indicate corresponding parts or features throughout the several views of the drawings.

DETAILED DESCRIPTION

Example embodiments will now be described more fully with reference to the accompanying drawings. The description and specific examples included herein are intended for purposes of illustration only and are not intended to limit the scope of the present disclosure.

FIG. **1** illustrates an example embodiment of a garment **100** including first and second enhancers **102'**, **104'** (e.g., right and left enhancers from a perspective of an individual wearing the garment **100**, etc.) including one or more aspects of the present disclosure. The garment **100** and enhancers **102'**, **104'** are configured for use, for example, by individuals following a mastectomy (e.g., post-mastectomy, etc.), or by other individuals desiring to simulate breast tissue. As will be described in more detail hereinafter, the enhancers **102'**, **104'** may reproduce the effect of a natural breast(s) and/or natural breast shape(s), etc. for an individual, when wearing the garment **100** with the enhancers **102'**, **104'** included therein (or therewith).

In this embodiment, the garment **100** is illustrated as a bra configured to be worn by an individual (e.g., a woman, etc.), generally around or over the individual's chest. It should be appreciated, though, that the enhancers **102'**, **104'** (as well as the other enhancers described herein) may be used with any desired garment within the scope of the present disclosure (in addition to a bra) including, for example, a swimsuit, a camisole, sports clothing, any other top or shirt, other garments, etc.

The illustrated garment **100** generally includes first and second cups **106**, **108** (or cup portions) (e.g., a right cup **106** and a left cup **108**, etc.) configured to fit generally over the chest of the individual (e.g., where breast material has been removed, etc.), straps **110** for holding the garment **100** over shoulders of the individual, and wings **112** (or bands) for positioning the garment **100** around sides (and under arms) of the individual wearing the garment **100**. A clasp (not visible in FIG. **1**) (e.g., a hook and eye coupling, etc.), then, may be provided at a back strap **114** to couple end portions of the wings **108** together adjacent a back of the individual, to secure the garment **100** on the individual **100** (and generally around the individual's chest). In other embodiments, the clasp may be positioned toward a front of the garment **100** (e.g., as one or more front closure hooks positioned between the cups **106**, **108**, etc.), or the clasp may be omitted (or eliminated) from the garment **100** altogether whereby the wings **108** and/or back strap **114** may extend generally continuously from a left side of the garment **100** to a right side of the garment (e.g., as in a sports bra, in a garment having a generally continuous circular knit construction, etc.).

The first cup **106** of the garment **100** includes the first enhancer **102'** and the second cup **108** of the garment **100** includes the second enhancer **104'**. In FIG. **1**, the second enhancer **104'** is shown removed from the second cup **108** of the garment **100** for illustration. That said, in the illustrated embodiment, the first and second cups **106**, **108** each define a pocket **116** configured to receive the respective one of the enhancers **102'**, **104'** therein. In particular, an opening **118** is defined in each of the cups **106**, **108** whereby the enhancers **102'**, **104'** may be positioned through the opening **118** and into the pocket **116** of the respective one of the cups **106**, **108**. The enhancers **102'**, **104'** may then be secured in the garment **100** within the corresponding pocket **116** of the cups **106**, **108** (e.g., via hoop-and-loop fasteners, via snap fasteners, via adhesive, etc.), or not. And, each opening **118** may be closed (e.g., via overlapping material, via hook-and-loop fasteners, via snap or button fasteners, via other mechanical fasteners, etc.) to retain the enhancers **102'**, **104'** in the cups **106**, **108**. What's more, the enhancers **102'**, **104'** may be selectively removed from the garment **100**, as desired, for example, for cleaning, for use with other garments, etc. In this way, in this example embodiment, the enhancers **102'**, **104'** may be reusable with different garments, etc.

While the illustrated garment **100** includes the two enhancers **102'**, **104'**, it should be appreciated that in other embodiments a single enhancer may be used with the garment **100** either in (or with) the first cup **106** or in (or with) the second cup **108**.

FIGS. **2-6** illustrate another embodiment of a first enhancer **102** (e.g., a right enhancer, etc.) and FIGS. **7-11** illustrate another embodiment of a second enhancer **104** (e.g., a left enhancer, etc.) suitable for use with the garment **100** of FIG. **1**, or with other garments as described herein. The first and second enhancers **102**, **104** of this embodiment are substantially similar to the first and second enhancers **102'**, **104'** described above with reference to FIG. **1**. As such, the following description of the enhancers **102**, **104** also applies to the enhancers **102'**, **104'**.

The enhancers **102**, **104** each generally include a first layer **122** (e.g., an outer layer, etc.) and a second layer **124** (e.g., an inner layer, etc.). The second layer **124** is positioned towards (e.g., close to, adjacent, in contact with, etc.) the chest of an individual when wearing the garment **100** (and when the garment includes the enhancers **102**, **104**). The

second layer **124**, then, may be connected with the first layer **122** by suitable means such as, for example, stitching, adhesive, tape, etc. generally around a perimeter of the enhancers **102**, **104**. Together, the first and second layers **122**, **124** may be viewed as forming a body or a housing of the enhancer **102** (or enhancer **104**) (e.g., defining a cavity or other space to contain or house or hold internal (or interior) components of the enhancer **102** or enhancer **104**, etc.).

In the illustrated embodiment, the first layer **122** may be constructed from (or may include) a neoprene material, a molded foam material, or other convention material such as that used to form a bra, or otherwise. And, the second layer **124** may be constructed from (or may include) a wicking material such as, for example, polyester, nylon, etc.

FIG. **12** illustrates an example side sectional view representative of each of the first and second enhancers **102**, **104** (i.e., both of the first enhancer **102** and the second enhancer **104** have a sectional view (and corresponding composition, construction, etc.) consistent with FIG. **12**). That said, the following description of FIG. **12** is provided with general reference to the first enhancer **102**. However, it should be appreciated that the description is also applicable to the second enhancer **104** (without repeating the same).

As shown, the enhancer **102** (and the enhancer **104**) further includes a third layer **126** and a fourth layer **128** (e.g., interior layers of the enhancer **102**, etc.) located generally within the enhancer **102** (and the enhancer **104**) (e.g., within a body of the enhancer **102**, within a cavity or pocket or opening or space defined by the first and second layers **122**, **124** of the enhancer **102**, etc.). The third layer **126** is positioned adjacent to (e.g., near, towards, in contact with, etc.) the first layer **122**, and the fourth layer **128** is positioned adjacent to (e.g., near, towards, in contact with, etc.) the second layer **124**. As such, the third layer **126** is disposed generally between the first layer **122** and the fourth layer **128** (e.g., within a pocket generally defined by the first layer **122** and the second layer **124**, etc.), and the fourth layer **128** is disposed generally between the third layer **126** and the second layer **124** (e.g., also within the pocket generally defined by the first layer **122** and the second layer **124**, etc.). In connection therewith, the third layer **126** extends along a generally forward portion of the enhancer **102**, from an upper shoulder portion **132** (or extension) of the enhancer **102** to a dart **134** of the enhancer **102** generally below (or under) (at least partly) the fourth layer **128** (such that at least a portion of the third layer **126** is disposed generally below (or under) the fourth layer **128**). A fifth layer **130** is then located generally between the third layer **126** and the fourth layer **128** (e.g., also within the pocket generally defined by the first layer **122** and the second layer **124**, etc.), for example, to separate the two layers **126**, **128**.

In the illustrated embodiment, the third layer **126** may include a plurality of monprene beads. The monprene beads are configured to provide a foundation of weight to the enhancer **102** (and the enhancer **104**) to mimic natural breast tissue (e.g., to mimic a weight and/or density of natural breast tissue, etc.). For instance, a weight of the monprene beads (and the beads themselves) may provide movement that appears realistic with regard to natural breast movement. In addition, the monprene beads may provide for conformity to the body of the individual when wearing the garment **100** (with the enhancer **102** (and/or the enhancer **104**) included therein). In various embodiments, the monprene beads may have a density of about 1 g/cm^3 or less (e.g., between about 0.5 g/cm^3 and about 1 g/cm^3, about 0.89 g/cm^3, etc.), and/or may have diameters of between about 1 millimeter and about 3 millimeters (e.g., about 2 millimeters, etc.).

Also in the illustrated embodiment (or alternatively), the fourth layer **128** may include a plurality of differently sized open cell poly foam pieces. The open cell poly foam pieces may include the same sizes of foam pieces or various different sizes (e.g., two or more different sizes, etc.) of foam pieces. For example, in one embodiment, the fourth layer **128** may include at least two different sizes of foam pieces included therein (e.g., foam pieces having a first size and foam pieces having a second size different from the first size (e.g., having different length, width, and/or thickness dimensions, etc.), etc.). In such embodiment, the at least two different sizes of foam pieces may respond to body heat and/or movement from the individual (for example, when wearing the garment **100** including the enhancer **102** and/or the enhancer **104**), and shift to conform to the individual's chest. In addition, the different sizes of foam pieces may create density (or an appearance of density) with little or minimal added weight to the enhancer **102** (or enhancer **104**) and may thereby simulate fatty tissue of a breast. In various embodiments, the fourth layer **128** may include different sizes of foam pieces where the different sizes each have dimensions ranging between about 4 millimeters and about 50 millimeters (e.g., length and width dimensions ranging between about 15 millimeters and about 35 millimeters, thickness dimensions ranging between about 6 millimeters and about 20 millimeters, etc.). In connection therewith, and as described above, the second layer **124** may include a wicking material configured to further respond to different body temperatures of the individual and, potentially, configured to pull moisture away from the individual, etc. (e.g., in combination with the open cell poly foam pieces of the fourth layer **128**, etc.).

In connection with the above, in various embodiments, the third layer **126** and the fourth layer **128** of the enhancer **102** (and/or the enhancer **104**) may include a particular proportion of material (e.g., monprene beads, open cell poly foam pieces, etc.), based on a breast size being simulated by the enhancer. For instance, in example embodiments of enhancers where the third layer **126** includes monprene beads and the fourth layer **128** includes open cell poly foam pieces, Tables 1 and 2 provide example proportions (by weight in ounces and by volume in cups) of the monprene beads and the open cell poly foam pieces that may be included in the enhancers in order to simulate different breast sizes (e.g., breast sizes of A, B, C, D, DD, etc.).

TABLE 1

Size	Monprene Beads (ounces)	Foam (ounces)
A	3.75	1.5
B	4.0-4.5	2.25
C	5.0-5.5	3
D	6.0-7.0	3.75
DD	8.0-9.25	4.5

TABLE 2

Size	Monprene Beads (cups)	Foam (cups)
A	0.5	0.5
B	1	0.75
C	1.25-1.66	1

TABLE 2-continued

Size	Monprene Beads (cups)	Foam (cups)
D	1.75-2.25	1.25
DD	2.5-3.5	1.5

Further in the illustrated embodiment (or alternatively in the illustrated embodiment), the fifth layer **130** may include a mesh material (or other suitable material) located generally between the third layer **126** and the fourth layer **128**. In connection therewith, the fifth layer **130** (e.g., the layer of mesh, etc.) may create a boundary between, for example, the plurality of monprene beads when included in the third layer **126** and the plurality of differently sized open cell poly foam pieces when included in the fourth layer **128**, to keep the monprene beads and foam separate (e.g., to inhibit the monprene beads and foam from mixing, etc.). More generally, the fifth layer **130** is configured to inhibit material of the third layer **126** and material of the fourth layer **128** from mixing. That said, in various implementations, the fifth layer **130** may completely surround (or encapsulate, etc.) either the material of the third layer **126** (e.g., the plurality of monprene beads, etc.) or the material of the fourth layer **128** (e.g., the open cell poly foam pieces, etc.) to inhibit the materials from mixing and/or from entering other layers of the enhancer **102** (or enhancer **104**).

With that said, and as generally described above, in various embodiments the first layer **122** may be constructed from (or may include) a material configured to hold its shape and/or create a generally smooth outer surface for the enhancer **102** (and the enhancer **104**) to facilitate an appearance of a smooth breast. Such material may include, without limitation, a neoprene material, a molded foam material, or other suitable material. In doing so, the first layer **122** may be configured to mask uneven appearances produced by the third layer **126**, for example, when the third layer **126** includes the monprene beads and/or by the fourth layer **128**, for example, when the fourth layer **128** includes the open cell poly foam pieces. In this way, the first layer **122** may further help reproduce the effect of a natural breast and/or natural breast shape, etc.

In the illustrated embodiment, the shoulder portion **132** of the first and/or second enhancers **102**, **104** may include at least a portion of material of the third layer **126** (e.g., the monprene beads, etc.) and/or at least a portion of the material of the fourth layer **128** (e.g., the open cell poly foam material, etc.). This may help provide for a pectoral tissue blend and a realistic transition between breast tissue and pectoral muscle into a shoulder portion of the individual (when wearing the garment **100**).

As described, the illustrated enhancer **102** generally includes multiple layers of components (i.e., the first layer **122**, the second layer **124**, the third layer **126**, the fourth layer **128**, and the fifth layer **130**). Uniquely, in some implementations described herein, such layers of components (or materials) may not include traditional padding. For example, in various embodiments, the first layer **122** may include a neoprene material and the second layer **124** may include a wicking material. In connection therewith, the neoprene material and the wicking material (as well as the monprene beads of the third layer **126**, the foam of the fourth layer **128**, and the mesh of the fifth layer **130** when included in such embodiments) may all be washable, to facilitate cleaning or washing of the enhancer **102** as part of (and generally together with) the garment **100** (e.g., without removing the enhancer **102** from the garment **100** to separately clean the garment **100** and/or the enhancer **102**, etc.).

With reference again to FIGS. **2-11**, the shoulder portion **132** of each of the enhancers **102**, **104** is disposed toward an upper part of the enhancers **102**, **104** and is configured to extend toward a shoulder of an individual wearing the garment **100**, for example, in general alignment with the straps **110** of the garment **100**. In some embodiments, the shoulder portion **132** may additionally include a foam material disposed therein (e.g., an additional amount of open cell poly foam pieces, etc.) configured to simulate, replace, etc. lost pectoral muscle tissue that would otherwise have been present before a mastectomy.

In addition in the illustrated embodiment, each of the enhancers **102**, **104** includes the single dart **134**. However, it should be appreciated that the enhancers **102**, **104** may each include additional darts depending, for example, on a size of the of the enhancers **102**, **104** (e.g., depending on a size of breast tissue to be simulated, etc.) (e.g., to allow an additional amount of monprene beads to settle within the lower curve of the first layer **122**, etc.). In general, smaller enhancers will have fewer darts, and additional darts will be added as the size of the enhancers increases. For instance, an enhancer simulating breast sizes between AA and D may include one dart, while enhancers simulating breast sizes greater than D may include two (or three) spaced apart darts (e.g., spaced apart about two inches, about three inches, etc.) (see, e.g., enhancers **202**, **204** in FIGS. **13-22**, etc.). The additional darts may help the larger enhancers accommodate additional amounts of material in the third layer **126** (e.g., monprene beads, etc.) and in the fourth layer **128** (e.g., open cell poly foam pieces, etc.) required to simulate the larger breast sizes (see, e.g., Tables 1 and 2, etc.).

That said, the dart **134** of each of the illustrated enhancers **102**, **104** is located in the first layer **122** (e.g., in a forward portion of the enhancers **102**, **104**, etc.) and is disposed toward the lower part of the enhancer **102**. In connection therewith, the lower part of the first layer **122** generally defines a curve extending toward the second layer **124**, where the dart **134** is then located (defined, formed, etc.) generally in the first layer **122** in a lower, underside part of the curve. The dart **134** is configured to facilitate settling of material included in the third layer **126** (e.g., the monprene beads, etc.) within the curve and first layer **122** to mimic a natural breast shape and/or curvature. In addition, the lower part of the curve, as generally formed by the dart **134** (e.g., in combination with the dart **134** itself, etc.), may also be configured to define a pocket area within the enhancer **102** that creates room for the material included in the third layer **126** to settle, for example, where the third layer **126** includes a plurality of monprene beads. To that end, in the illustrated embodiment the second layer **124** does not include the dart **134**; the dart is only formed in the first layer **122**.

Moreover in the illustrated embodiment, the first enhancer **102** (for example, when included in the garment **100** being worn by an individual) is configured for use over a right chest-portion of the individual (e.g., in the first cup **106**, etc.) (e.g., to mimic, etc. a right breast of the individual). And, the second enhancer **104** (for example, when included in the garment **100** being worn by an individual) is configured for use over a left chest-portion of the individual (e.g., in the second cup **108**, etc.) (e.g., to mimic, etc. a left breast of the individual). In connection therewith, a portion **138** of the curve of the first layer **122** (for each of the enhancers **102**, **104**), on a side of the enhancer **102**, **104** extending toward an underarm of the individual (e.g., generally to the left of the dart **134** of the first enhancer **102** as viewed in FIG. **3** and

generally to the right of the dart **134** of the second enhancer **104** as viewed in FIG. **8**, etc.), is longer in length (and defines a generally higher curve) than a portion **140** of the curve on a side of the enhancer **102** extending toward a center of a chest of the individual (e.g., generally to the right of the dart **134** of the first enhancer **102** as viewed in FIG. **3** and generally to the left of the dart **134** of the second enhancer **104** as viewed in FIG. **8**, etc.). In this way, the enhancers **102**, **104** define a particular shape (e.g., a breast shape, etc.) that includes not only the shoulder portion **132**, but also a side-breast portion **142** (defining the generally higher curve of the enhancer **102**, **104**), both of which help blend appearance of the enhancers **102**, **104** onto an individual's body as a natural breast shape. What's more, this shape may further provide symmetry on a front of the individual's chest, when wearing the garment **100**, (by way of the specifically configured enhancers **102**, **104**).

An example operation of making the enhancers **102**, **104** will be described next. In this example, each of the enhancers **102**, **104** may be assembled generally layer by layer, through use of machine stitching. For instance, material for the first, second, and fifth layers **122**, **124**, **130** may initially be cut to desired shapes for the enhancers **102**, **104** (e.g., the shapes shown in FIGS. **3**, **6**, **8**, **11**, etc.). Next, the dart **134** may be formed in the first layer **122** by folding and cutting a section (e.g., about a one inch cut, etc.) in the lower arc of the first layer **122** and stitching the two cut sides together. The fifth layer **130** may then be stitched to the second layer **124** around a perimeter of the fifth layer **130** (e.g., at **144** in FIG. **12**, etc.), to thereby define a pocket between the second layer **124** and the fifth layer **130**, while leaving an opening (or unstitched section) to allow for positioning of the open cell poly foam pieces in the pocket. Similarly, the first layer **122** may be stitched to the second layer **124** around a perimeter of the first and second layers **122**, **124** (e.g., at **146** in FIG. **12**, etc.), to thereby define another pocket between the first layer **122** and the fifth layer **130**, while again leaving an opening (or unstitched section) to allow for positioning of the monprene beads in the pocket.

Next, the open cell poly foam pieces may be positioned in the shoulder portion **132**, and stitched in place. The monprene beads may be added to the pocket between the first layer **122** and the fifth layer **130**, and the opening thereto is stitched closed. And, additional open cell poly foam pieces may be added to the pocket between the second layer **124** and the fifth layer **130**, and the opening thereto is stitched closed.

FIGS. **13-22** illustrate another embodiment of first and second enhancers **202**, **204** suitable for use with the garment **100** of FIG. **1**, or with other garments as described herein. The first and second enhancers **202**, **204** of this embodiment are substantially the same as the first and second enhancers **102**, **104** described above with reference to FIGS. **2-12**. As such, the description of the enhancers **102**, **104** above also applies to the enhancers **202**, **204** (with corresponding reference numbers in FIGS. **13-22** indicating corresponding parts to those described above with reference to the enhancers **102**, **104**). That said, in this embodiment, the enhancers **202**, **204** are configured to simulate larger amounts of breast tissue. As such, each of the enhancers **202**, **204** includes two darts **134** to help accommodate the larger size of the enhancers **202**, **204** and to help allow the additional material added in the third layer **126** (to accommodate the larger size of the enhancers **202**, **204**) to settle within the lower curved portion of the first layer **122**.

In addition in this embodiment, the portion **138** of the curve of the first layer **122** (for each of the enhancers **202**, **204**), on a side of the enhancer **202**, **204** extending toward an underarm of the individual (e.g., generally to the left of the left-most dart **134** of the first enhancer **202** as viewed in FIG. **14** and generally to the right of the right-most dart **134** of the second enhancer **204** as viewed in FIG. **19**, etc.), is longer in length than a portion **140** of the curve on a side of the enhancer **102** extending toward a center of a chest of the individual (e.g., generally to the right of the right-most dart **134** of the first enhancer **202** as viewed in FIG. **14** and generally to the left of the left-most dart **134** of the second enhancer **204** as viewed in FIG. **19**, etc.).

FIG. **23** illustrates a rear view of a garment **300** including another example embodiment of an enhancer **302** of the present disclosure (e.g., a right enhancer, etc.). The enhancer **302** is substantially similar to the first enhancer **102** described above with reference to FIGS. **2-12**. As such, the description of the enhancer **102** above also generally applies to the enhancer **302** (unless indicated otherwise herein).

In this embodiment, the enhancer **302** is shown coupled (or installed) in a cup **306** of the garment **300**. The garment **300** is illustrated as a bra in this embodiment, with the enhancer **302** shown positioned within the cup **306** of the bra. It should again be appreciated that in other embodiments, the garment **300** may include other garments (other than bras) configured to be worn by or worn over the chest of an individual.

The enhancer **302** includes a first layer **322** and a second layer **324**. The first layer **322** is a separate layer of material from the material used to form the cup **306** of the garment **300**. As such, to couple (or install) the enhancer **302** to the garment **300**, the enhancer **302** is stitched to the garment **300** generally along outer edges thereof within the cup **306** of the garment **300**.

In one implementation of this embodiment, in forming the enhancer **302**, a lower portion of peripheral edges of the first layer **322** and the second layer **324** may be initially sewed together and into a lower portion of the cup **306** of the garment at seam/stitch **350**. As appropriate, then, a fifth layer of material may be added between the first and second layers **322**, **324** (the fifth layer is not visible in FIG. **23**, but is substantially the same as layer **130** described above for the enhancer **102**). In doing so, an opening **352** is left (or remains) at an upper part of the enhancer **302** (e.g., at a shoulder portion of the garment **300**, etc.) to provide access to pockets between the first layer **322** and the fifth layer and between the second layer **324** and the fifth layer to receive, for example, monprene beads (as a third layer) and open cell poly foam pieces (as a fourth layer). Then, edges **354** of the opening **352** may be finished (e.g., sewed together, etc.) and zigzag lining (or sewing), at seam **356**, may be added along outer edges of the enhancer **302**.

Alternatively, as another implementation of this embodiment, the enhancer **302** may be initially constructed as described above for the enhancer **102**. The constructed enhancer **302** may then be sewn into the cup **306** of the garment **300** around its perimeter (as described, for example, via seams **350**, **356**, etc.).

With that said, in this example embodiment, the enhancer **302** may be permanent to the garment **300** (e.g., due to stitching, etc.). This may help retain dignity for the individual, as it requires one less component to put together after a mastectomy. Such a permanent attachment of the enhancer **302** to the garment **300** may also help maintain a consistent location of the enhancer **302** in the garment **300**, a consistent look of the garment **300**, etc., across multiple wears, washes, etc. In various implementations, the garment **300** may also

be modified by removing and changing the enhancer **302** according to a lifestyle or purpose of the garment **300**, etc.

FIG. **24** illustrates another example use of the enhancer **102**, in which the enhancer **102** may be positioned (as indicated by the arrow in FIG. **24**) within a cup **406** of a garment **400** generally between the garment **400** and a chest portion of an individual **401** wearing the garment **400**. In this use, the enhancer **102** is not inserted into a cavity or pocket defined by the cup **406** of the garment **400** nor is it stitched to the garment **400**. Instead, the enhancer **102** simply rests within the cup **406** of the garment **400** generally adjacent (e.g., close to, against, etc.) the chest portion of the individual.

FIGS. **25-28** illustrate two additional embodiments of enhancers **502**, **602** both suitable for use with the garment **100** of FIG. **1**, or with other garments as described herein. The enhancer **502** (FIGS. **25-26**) is substantially similar to the first enhancer **102** described above with reference to FIGS. **2-12**. As such, the description of the enhancer **102** above also generally applies to the enhancer **502** (with corresponding reference numbers in FIGS. **25-26** indicating corresponding parts to those described above with reference to the enhancer **102**). Similarly, the enhancer **602** (FIGS. **27-28**) is substantially similar to the first enhancer **202** described above with reference to FIGS. **13-17**. As such, the description of the enhancer **202** above also generally applies to the enhancer **602** (with corresponding reference numbers in FIGS. **27-28** indicating corresponding parts to those described above with reference to the enhancer **202**). That said, in this embodiment, example dimensions (in inches) are provided for different parts of the enhancers **502**, **602**. It should be appreciated, though, that other enhancers herein may have one or more other dimensions within the scope of the present disclosure.

In further embodiments, an enhancer may be formed directly in or with a garment. For example, a first layer of the enhancer may be defined by a cup of the garment, and the remaining layers then formed, as described above, relative to the cup (acting as the first layer). In such embodiments, the enhancer may be viewed as integral with or formed as part of the garment (whereby the garment itself may define or may be viewed as an enhancer).

Example embodiments are provided so that this disclosure will be thorough, and will fully convey the scope to those who are skilled in the art. Numerous specific details are set forth such as examples of specific components, devices, and methods, to provide a thorough understanding of embodiments of the present disclosure. It will be apparent to those skilled in the art that specific details need not be employed, that example embodiments may be embodied in many different forms and that neither should be construed to limit the scope of the disclosure. In some example embodiments, well-known processes, well-known device structures, and well-known technologies are not described in detail.

The terminology used herein is for the purpose of describing particular example embodiments only and is not intended to be limiting. As used herein, the singular forms "a," "an," and "the" may be intended to include the plural forms as well, unless the context clearly indicates otherwise. The terms "comprises," "comprising," "including," and "having," are inclusive and therefore specify the presence of stated features, integers, steps, operations, elements, and/or components, but do not preclude the presence or addition of one or more other features, integers, steps, operations, elements, components, and/or groups thereof. The method steps, processes, and operations described herein are not to be construed as necessarily requiring their performance in the particular order discussed or illustrated, unless specifically identified as an order of performance. It is also to be understood that additional or alternative steps may be employed.

Although the terms first, second, third, etc. may be used herein to describe various elements, components, regions, layers and/or sections, these elements, components, regions, layers and/or sections should not be limited by these terms. These terms may be only used to distinguish one element, component, region, layer or section from another region, layer or section. Terms such as "first," "second," and other numerical terms when used herein do not imply a sequence or order unless clearly indicated by the context. Thus, a first element, component, region, layer or section discussed below could be termed a second element, component, region, layer or section without departing from the teachings of the example embodiments.

Spatially relative terms, such as "inner," "outer," "beneath," "below," "lower," "above," "upper," and the like, may be used herein for ease of description to describe one element or feature's relationship to another element(s) or feature(s) as illustrated in the figures. Spatially relative terms may be intended to encompass different orientations of the device in use or operation in addition to the orientation depicted in the figures. For example, if the device in the figures is turned over, elements described as "below" or "beneath" other elements or features would then be oriented "above" the other elements or features. Thus, the example term "below" can encompass both an orientation of above and below. The device may be otherwise oriented (rotated 90 degrees or at other orientations) and the spatially relative descriptors used herein interpreted accordingly.

Specific dimensions, specific materials, and/or specific shapes disclosed herein are example in nature and do not limit the scope of the present disclosure. The disclosure herein of particular values and particular ranges of values for given parameters are not exclusive of other values and ranges of values that may be useful in one or more of the examples disclosed herein. Moreover, it is envisioned that any two particular values for a specific parameter stated herein may define the endpoints of a range of values that may be suitable for the given parameter (i.e., the disclosure of a first value and a second value for a given parameter can be interpreted as disclosing that any value between the first and second values could also be employed for the given parameter). For example, if Parameter X is exemplified herein to have value A and also exemplified to have value Z, it is envisioned that parameter X may have a range of values from about A to about Z. Similarly, it is envisioned that disclosure of two or more ranges of values for a parameter (whether such ranges are nested, overlapping or distinct) subsume all possible combination of ranges for the value that might be claimed using endpoints of the disclosed ranges. For example, if parameter X is exemplified herein to have values in the range of 1-10, or 2-9, or 3-8, it is also envisioned that Parameter X may have other ranges of values including 1-9, 1-8, 1-3, 1-2, 2-10, 2-8, 2-3, 3-10, and 3-9.

The foregoing description of the embodiments has been provided for purposes of illustration and description. It is not intended to be exhaustive or to limit the disclosure. Individual elements or features of a particular embodiment are generally not limited to that particular embodiment, but, where applicable, are interchangeable and can be used in a selected embodiment, even if not specifically shown or described. The same may also be varied in many ways. Such variations are not to be regarded as a departure from the

disclosure, and all such modifications are intended to be included within the scope of the disclosure.

What is claimed is:

1. An enhancer for simulating breast tissue, the enhancer comprising:

a forward, first layer of material;

a rearward, second layer of material for positioning adjacent a chest of an individual, the second layer of material coupled to the first layer of material, the second layer of material including a wicking material;

a third layer of material disposed generally between the first layer of material and the second layer of material, the third layer of material including a plurality of thermoplastic elastomer beads;

a fourth layer of material disposed generally rearward of the third layer of material and generally between the first layer of material and the second layer of material, the fourth layer of material including a plurality of open cell poly foam pieces; and

a fifth layer of material coupled to the second layer of material and disposed at least between the third layer of material and the fourth layer of material, the fifth layer of material configured to inhibit mixing of the thermoplastic elastomer beads of the third layer and the open cell poly foam pieces of the fourth layer;

wherein the third layer of material is further disposed generally between the first layer of material and the fifth layer of material; and

wherein the fourth layer of material is further disposed generally between the second layer of material and the fifth layer of material.

2. The enhancer of claim **1**, wherein at least part of the third layer of material engages the rearward, second layer of material at a location generally below the fourth layer of material.

3. The enhancer of claim **1**, wherein the first layer of material is coupled to the second layer of material via stitching.

4. The enhancer of claim **1**, wherein the first layer of material defines a curve toward a lower part of the first layer of material; and

wherein the enhancer further includes at least one dart disposed on an underside of the curve.

5. The enhancer of claim **4**, wherein the curve defines a pocket area configured to receive the plurality of thermoplastic elastomer beads.

6. The enhancer of claim **4**, wherein the at least one dart is formed in only the first layer of material.

7. The enhancer of claim **1**, wherein the plurality of open cell poly foam pieces include at least one piece having a first size, and another piece having a second size different from the first size.

8. The enhancer of claim **1**, further comprising a shoulder portion defined by at least the first layer of material and the second layer of material, the shoulder portion forming an upper portion of the enhancer and including at least one foam material.

9. A garment including the enhancer of claim **1**.

10. An enhancer for simulating breast tissue, the enhancer comprising:

a body having a rearward layer for positioning adjacent a chest of an individual and a forward layer generally opposite the rearward layer;

a plurality of thermoplastic elastomer beads disposed within the body adjacent the forward layer;

a plurality of open cell poly foam pieces disposed within the body rearward of the plurality of thermoplastic elastomer beads and adjacent the rearward layer; and

a mesh layer disposed within the body between the thermoplastic elastomer beads and the open cell poly foam pieces, the mesh layer configured to separate the thermoplastic elastomer beads and the open cell poly foam pieces within the body to inhibit mixing of the thermoplastic elastomer beads and the open cell poly foam pieces.

11. The enhancer of claim **10**, wherein the plurality of open cell poly foam pieces include at least one piece having a first size, and another piece having a second size different from the first size.

12. The enhancer of claim **10**, wherein the body includes at least one dart.

13. The enhancer of claim **12**, wherein the body defines a curve toward a lower part of the body; and

wherein the at least one dart is disposed on an underside of the curve.

14. The enhancer of claim **12** wherein the body includes at least two darts.

15. The enhancer of claim **10**, wherein the body includes a shoulder portion that forms an upper portion of the body, the shoulder portion including a plurality of open cell poly foam pieces.

16. A garment including the enhancer of claim **10**.

17. The enhancer of claim **10**, wherein a ratio of the thermoplastic elastomer beads and the open cell poly foam pieces is between about 1.5:1 and about 3:1.

18. The enhancer of claim **10**, wherein a density of the thermoplastic elastomer beads is about 1 g/cm^3 or less.

19. The enhancer of claim **10**, wherein the body includes a shoulder portion that forms an upper portion of the body; and wherein the plurality of thermoplastic elastomer beads extend along the forward layer of the body from the shoulder portion to the rearward layer at a location generally below the plurality of open cell poly foam pieces.

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